

Refocus Search

Staff Use Only

Complete 705 Template Search Requested

☐ RUSH - SPE signature required: _____

Access DB#

10949/

Business Methods Case: 705/ 26

Log Number _____

Write in 705 subclass(es) to search required files for 705 cases or cases cross referenced in 705.

Requester's Full Name: Elaine Gort Examiner #: 77459 Date: 11/2/03

Art Unit: 3627 Phone Number 703/308-6391 Serial Number: 9/839,245

Bldg & Room #: PK5 7B21

Results Format Preferred: PAPER

If more than one search is submitted, please prioritize searches in order of need.

Provide the PALM Bib page or the following:

Title of Invention: see attached bib sheet

Inventors (provide full names): See bib sheet

Earliest Priority Filing Date: 4/24/00

Requested attachments:

- If possible, provide the cover sheet, the IDS, examples, or relevant citations, authors, etc, if known.
- Please attach copies of the parts of this case that help explain or are most pertinent to this search. Examples are: abstract, background, summary, claim(s) [not all of the claims].

See particularly claims 1 + 13

The claimed or apparent novelty of the invention is:

Buyer presents a model to seller which the seller uses to determine a ~~lowest cost~~ ~~cost source~~ coal source that produces the lowest cost of production

This search should focus on:

(Also include keywords or synonyms)

Black + Veatch made a product "Coal Quality Expert" also called "Vista model" Epr. ↑

Another model by Rod Hatt - "Coal Quality Evaluation model"

Please find something prior to 4/24/00

Special Instructions or Other Comments

case print out documents in full - no abstracts please

Thanks EQ

STAFF USE ONLY

Searcher: Bode AKm 64

Searcher Phone #: 308-6150

Searcher Location: EIC 3600

Date Searcher Picked Up: 12/5/03

Date Completed: 12/16/03

Searcher Prep & Review Time: 120

Clerical Prep Time: _____

Online Time: 120

Type of Search

NA Sequence (#) _____

AA Sequence (#) _____

Structure (#) _____

Bibliographic _____

Litigation _____

Fulltext _____

Patent Family _____

Other _____

Vendors and cost where applicable

STN _____

Dialog \$ 795.63

Questel/Orbit _____

Dr. Link _____

Lexis/Nexis _____

Sequence Systems _____

WWW/Internet ☒

Other (specify) _____



STIC Search Report

EIC 3600

STIC Database Tracking Number: 109491

TO: Elaine Gort
Location:
Art Unit : 3627
Monday, December 08, 2003

Case Serial Number: 09/839245

From: Bode Akintola
Location: EIC 3600
PK5-Suite 804, 8A01
Phone: 308-6150

Olabode.akintola@uspto.gov

Search Notes

Examiner Elaine,

Please find attached your search results.

I did not print the results in full, but will be able to print specific articles or references in full text at your request after reviewing the whole packet.

Please let me know if you like for me to try a refocused search with a different strategy or additional terms. Please take a few minutes to fill the attached Colored feedback form to the EIC.

Thanks,

Bode Akintola



Set	Items	Description
S1	72847	COAL? ?
S2	3109213	ELECTRIC? OR POWER?
S3	0	BLACK(1W)VEATCH? OR ROD()HATT
S4	840550	COST? OR PRICE?
S5	7396993	PRODUC? OR GENERAT? OR OPERAT?
S6	1713849	QUALIT? OR CHARACTERISTIC? OR PROPERTIES
S7	105811	MODEL?
S8	5406	S1 AND S4
S9	144	S8 AND S6 AND S2
S10	2	S9 AND IC=G06F?
S11	1	S9 AND S7
S12	2	S10 OR S11

? show file

File 344:Chinese Patents Abs Aug 1985-2003/Nov

(c) 2003 European Patent Office

File 347:JAPIO Oct 1976-2003/Aug(Updated 031202)

(c) 2003 JPO & JAPIO

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200378

(c) 2003 Thomson Derwent

File 371:French Patents 1961-2002/BOPI 200209

(c) 2002 INPI. All rts. reserv.

12/5/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

014985030 **Image available**
WPI Acc No: 2003-045545/200304
Related WPI Acc No: 1999-518926; 1999-633496
XRAM Acc No: C03-011508
XRPX Acc No: N03-035796

Fluid flow measurement for coal seam gas well, involves analyzing characteristics of volume and rate of liquid flow using digital electrical data signals from transducers and liquid meter

Patent Assignee: OCONDI C (OCON-I)
Inventor: OCONDI C
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6446014	B1	20020903	US 9739125	P	19970225	200304 B
			US 99436066	A	19991108	

Priority Applications (No Type Date): US 9739125 P 19970225; US 99436066 A 19991108

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6446014	B1		9	G06F-019/00	Provisional application US 9739125

Abstract (Basic): US 6446014 B1

NOVELTY - Analog and digital **electric** data signals from transducers are input to an **electric** component system as a function of time. The analog and digital **electrical** signals generated by a liquid meter are transmitted to the **electric** component system and are stored in a data logging manager. The **characteristics** of volume and rate of liquid flow are analyzed using the stored data and input data.

USE - For measuring fluid flowing from **coal** seam gas well.

ADVANTAGE - Enhances the accuracy, **quality** and resolution of trending data of liquid from **coal** seam gas well, by time stamping all analog and digital event data, improving the recovery of liquid at reduced **cost**.

DESCRIPTION OF DRAWING(S) - The figure shows a remote operator interface system.

pp; 9 DwgNo 4/4

Title Terms: FLUID; FLOW; MEASURE; **COAL** ; SEAM; GAS; WELL; **CHARACTERISTIC** ; VOLUME; RATE; LIQUID; FLOW; DIGITAL; **ELECTRIC** ; DATA; SIGNAL; TRANSDUCER; LIQUID; METER

Derwent Class: H01; S02; T01

International Patent Class (Main): **G06F-019/00**

File Segment: CPI; EPI

12/5/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

014446758 **Image available**
WPI Acc No: 2002-267461/200231
XRPX Acc No: N02-207957

Buy and sell transaction for non-commodity material over network, by estimating operating and production costs for non-commodities to determine which, if any, of non-commodities are within maximum cost

Patent Assignee: CICHANOWICZ J E (CICH-I)
Inventor: CICHANOWICZ J E
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020023044	A1	20020221	US 2000199126	P	20000424	200231 B
			US 2001839245	A	20010423	

Priority Applications (No Type Date): US 2000199126 P 20000424; US
2001839245 A 20010423

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020023044	A1		12	G06F-017/60	Provisional application US 2000199126

Abstract (Basic): US 20020023044 A1

NOVELTY - Each of multiple sellers provides physical, chemical and/or **electrical characteristics**, and the **cost** of the non-commodity available for sale, and creates a database of the non-commodity including the different physical and chemical **characteristics** for each non-commodity available for sale.

DETAILED DESCRIPTION - A buyer provides a performance simulation **model** of a chemical, mechanical or **electrical** process with equipment currently in operation and with a desired amount of the non-commodity for use in the process. The buyer also provides a desired maximum operating **cost** or maximum production **cost**, or desired operating **characteristics** of the process. The operating and production **costs** are estimated for at least some of the non-commodities from the database of different non-commodities to determine which, if any, of the non-commodities are within the maximum **cost**. The buyer is provided with a list of non-commodities that when used as input for the process are within the desired maximum operating and production **costs**, or provide certain operating **characteristics**. A database and standard datamining techniques are utilized to record performance of the process with the selected non-commodity item. The recorded information is applied in the formulation of a request-for-proposal for future purchases of non-commodity materials or items.

An INDEPENDENT CLAIM is also included for a system for conducting buy and sell transactions over a network for non-commodity that can have differing chemical and physical **characteristics**.

USE - For buy and sell transaction of non-commodity materials or items, such as **coal**, crude oil, electronic components, and paper pulp.

ADVANTAGE - Enables selection of optimal material or item for design or process.

DESCRIPTION OF DRAWING(S) - The figure represents a block diagram of the logic flow for explaining the buy and sell transaction for non-commodity material over network.

pp; 12 DwgNo 1/1

Title Terms: BUY; SELL; TRANSACTION; NON; COMMODITY; MATERIAL; NETWORK;
ESTIMATE; OPERATE; PRODUCE; **COST**; NON; COMMODITY; DETERMINE; NON;
COMMODITY; MAXIMUM; **COST**

Derwent Class: T01

International Patent Class (Main): **G06F-017/60**

File Segment: EPI

Set	Items	Description
S1	805795	COAL? ?
S2	6567	BLACK(1W)VEATCH? OR ROD()HATT
S3	10901808	COST???
S4	1671005	S3(5N) (LOW??? OR MINIM? OR OPTIM?)
S5	12044	S4(20N)S1
S6	6497	S5(10N) (PRODUC? OR GENERAT? OR OPERAT?)
S7	2293	S6(10N) (ELECTRIC? OR POWER?)
S8	119	S7(15N) (QUALIT? OR CHARACTERISTIC? OR PROPERTIES)
S9	19	S7(S)MODEL?
S10	87	S2 AND S5
S11	216	S8 OR S9 OR S10
S12	134	S11 NOT PY>2000
S13	126	S12 NOT PD=20000424:20031208
S14	97	RD (unique items)

? show file

File 9:Business & Industry(R) Jul/1994-2003/Dec 05
(c) 2003 Resp. DB Svcs.

File 16:Gale Group PROMT(R) 1990-2003/Dec 05
(c) 2003 The Gale Group

File 18:Gale Group F&S Index(R) 1988-2003/Dec 05
(c) 2003 The Gale Group

File 20:Dialog Global Reporter 1997-2003/Dec 08
(c) 2003 The Dialog Corp.

File 148:Gale Group Trade & Industry DB 1976-2003/Dec 05
(c)2003 The Gale Group

File 160:Gale Group PROMT(R) 1972-1989
(c) 1999 The Gale Group

File 354:Ei EnCompassLit(TM) 1965-2003/Dec W1
(c) 2003 Elsevier Eng. Info. Inc.

File 481:DELPHES Eur Bus 95-2003/Nov W5
(c) 2003 ACFCI & Chambre CommInd Paris

File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
(c) 2002 The Gale Group

File 621:Gale Group New Prod.Annou.(R) 1985-2003/Dec 05
(c) 2003 The Gale Group

File 624:McGraw-Hill Publications 1985-2003/Dec 05
(c) 2003 McGraw-Hill Co. Inc

File 635:Business Dateline(R) 1985-2003/Dec 06
(c) 2003 ProQuest Info&Learning

File 636:Gale Group Newsletter DB(TM) 1987-2003/Dec 05
(c) 2003 The Gale Group

File 637:Journal of Commerce 1986-2003/Dec 08
(c) 2003 Commonwealth Bus. Media

File 750:Emerging Mkts & Middle East News 1995-2003/Dec 04
(c) 2003Dialog Corp.

14/3,K/1 (Item 1 from file: 9)
DIALOG(R)File 9:Business & Industry(R)
(c) 2003 Resp. DB Svcs. All rts. reserv.

2324544 Supplier Number: 02324544

SCR gains as NOx compliance loom

(Some 800 utility boilers must meet Clean Air Act compliance standards by 2000, with over 300 units liable in 1999 over Nox emissions, and 1,000 units in 22 states east of the Mississippi River must comply by 2003)

Power, v 142, n 6, p 10

November 1998

DOCUMENT TYPE: Journal ISSN: 0032-5929 (United States)

LANGUAGE: English RECORD TYPE: Abstract

ABSTRACT:

...have shown a commitment to place selective catalytic reduction (SCR) in some of the biggest, **low - cost coal** plants in the US. As part of the largest SCR contract in the US, **Black & Veatch** (Kansas City, MO) will help Associated Electric Cooperative Inc. (AECI) (Springfield, MO) install its SCR...

14/3,K/2 (Item 2 from file: 9)
DIALOG(R)File 9:Business & Industry(R)
(c) 2003 Resp. DB Svcs. All rts. reserv.

1948953 Supplier Number: 01948953 (USE FORMAT 7 OR 9 FOR FULLTEXT)

CONSTELLATION STARS IN FIRST GUATEMALAN SELL-OFF

(Guatemalan Generating Group (GGG) buys two power plants from Empresa Electrica de Guatemala (EEGSA) for US\$30 mil fixed payment; GGG to sell power to EEGSA)

Global Private Power, n 27, p 2-3

August 27, 1997

DOCUMENT TYPE: Newsletter ISSN: 0319-0714 (United Kingdom)

LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 1697

(USE FORMAT 7 OR 9 FOR FULLTEXT)

TEXT:

...kWh.

GGG attributed the success of its bid to the proposed use of non-traditional, **low cost** fuels in the plant. The company will build a 150MW power plant fuelled by either imported **coal** or Orimulsion. No power plant in central America is currently fuelled by either of the...a turnkey contract awarded to a consortium of the US's J.A. Jones and **Black & Veatch**. The scheme has received a US\$32m loan guaranty from the Overseas Private Investment Corporation...

14/3,K/3 (Item 3 from file: 9)
DIALOG(R)File 9:Business & Industry(R)
(c) 2003 Resp. DB Svcs. All rts. reserv.

1905968 Supplier Number: 01905968 (USE FORMAT 7 OR 9 FOR FULLTEXT)

A steamy new power plant era

(Illinois plans to build a new generation of power plants that could help rejuvenate its struggling coal industry)

Crain's Chicago Business, v 20, n 30, p 1+

July 28, 1997
DOCUMENT TYPE: Journal ISSN: 0149-6956 (United States)
LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 772

(USE FORMAT 7 OR 9 FOR FULLTEXT)

TEXT:

...of electric power generation plants," says Director John Mead. "The demand is there--people want **low - cost** energy.

Early-stage proposals

At least two engineering firms are weighing clean- **coal** projects.

Chicago-based Sargent & Lundy LLC plans to build a pilot plant near Elkhart, north...

...a great deal of preliminary work," he says.

Other firms, such as Kansas City-based **Black & Veatch**, Parsons Engineering Science Inc. of California and the engineering unit of Duke Power Co. of...

14/3,K/4 (Item 4 from file: 9)
DIALOG(R)File 9:Business & Industry(R)
(c) 2003 Resp. DB Svcs. All rts. reserv.

1402424 Supplier Number: 01402424
Russia: Technology for utilization of coal powder was developed in Novosibirsk.
(Hydrodynamics Institute and Institut Hidroimpulsnoj Tekhniki have developed technology for increased utilization of coal powder)
Delovoj Mir, p 5
February 06, 1996
DOCUMENT TYPE: Journal (Russia)
LANGUAGE: Russian RECORD TYPE: Abstract

ABSTRACT:

...of briquettes produced with use of the new technology is close to this of high **quality coal** but **cost** is substantially **lower**. The shock pressing technology could be applied also for **production** of high-precision and high-strength details from various **power** materials.
...

14/3,K/5 (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

06713835 Supplier Number: 56196978 (USE FORMAT 7 FOR FULLTEXT)
Shell Oil Company.
APS Review Downstream Trends, v53, n14, pNA
Oct 4, 1999
Language: English Record Type: Fulltext
Document Type: Newsletter; Trade
Word Count: 1257

... was therefore a surprise when, at the end of August 1999, Shell

stated that its **coal** business was now a non-core activity and was for sale. Shell's present **coal production** is high **quality low cost**, ie ideal for **electricity** production and is profitable. An Australian **power** plant presently under construction is also being sold. The key statistics for Shell's coal...

14/3,K/6 (Item 2 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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06662947 Supplier Number: 55867467 (USE FORMAT 7 FOR FULLTEXT)
Penn Virginia Closes \$30.4 Million Coal Reserve Acquisition.
PR Newswire, p3968
Sept 27, 1999
Language: English Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 398

... Executive Officer, A. James Dearlove, said, "We are pleased with the addition of these high **quality** coal reserves. Over 50 million tons of the reserves are contiguous with the Company's **Coal River properties** and have easy access to the Kanawha River, which provides our lessees with **low cost** barge transportation to a number of **electric power generators**. The new **properties** are expected to contribute to continued growth in Penn Virginia's royalty operations, which provide....

14/3,K/7 (Item 3 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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06610343 Supplier Number: 55654069 (USE FORMAT 7 FOR FULLTEXT)
Western coals push east.(includes related article)(switching to Western coals need careful analysis of many factors)(Cover Story)
Schimmoller, Brian K.
Power Engineering, v103, n8, p18(6)
August, 1999
Language: English Record Type: Fulltext
Article Type: Cover Story
Document Type: Magazine/Journal; Trade
Word Count: 3396

... This is summed up best in the following statement by Dick Rinehart, senior consultant for **Black & Veatch** : "Powder River Basin coal. either directly or indirectly, sets the pricing of coal across the...

...States."

PRB coals are rapidly spreading eastward. Despite their higher moisture contents compared with bituminous **coals**, resulting in significantly lower heat contents, subbituminous **coals** are commonly the **low - cost** fuel to Eastern and Midwestern plants. and the complete replacement of bituminous fuels is often...

...PRB coal is \$1.50/MMBtu, compared to \$1.55-\$1.76/MMBtu for Appalachian **coals**, according to Rinehart. In addition to the mining economics noted above, this situation reflects the **low costs** of efficient large-scale and competitive rail transport furnished by the Western railroads as compared...

...Western coal onslaught. Plagued by high sulfur contents and

comparatively higher mining costs, Illinois Basin **coals** are struggling to remain a viable option in a utility fuels market that not only demands **low cost**, but now demands **lower** sulfur contents as Phase II of the Clean Air Act comes into effect.

Illinois Power is switching to PRB **coals** at its Hennepin and Baldwin power stations by the end of 1999 because it is the **low - cost** Phase II compliance option. Purchasing allowances, which Illinois Power had done for Phase I, or...lock up the majority of the reserves in the PRB, the market dynamics would change. **Black & Veatch**'s Rinehart does not expect a price spike, however, because, except for the large capital...

14/3,K/8 (Item 4 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

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06468554 Supplier Number: 55050293 (USE FORMAT 7 FOR FULLTEXT)

Penn Virginia to Buy Coal Reserves For \$31 Million.

PR Newswire, p4389

July 1, 1999

Language: English Record Type: Fulltext

Document Type: Newswire; Trade

Word Count: 407

... said, "Over 50 million tons of the acquired reserves are contiguous with the Company's **Coal River properties** and have easy access to the Kanawha River, thus providing **low cost** barge transportation to a number of **electric power generators**. All three **properties** have CSX railway access. Current annual production from the new **properties** is approximately 2.5 million tons and is expected to increase to the five million...

14/3,K/9 (Item 5 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

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06041526 Supplier Number: 53523552 (USE FORMAT 7 FOR FULLTEXT)

Engineering that helps the world run better.

European Power News, v23, n12, p25(1)

Dec, 1998

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Tabloid; Trade

Word Count: 987

... Energia Oy and TBV, a joint venture of British Tarmac Construction International and USA-based **Black and Veatch**, will supply and construct a new power plant for AES Borsodi. In the project FW...

...plant will generate electricity with efficiencies between 40-46% (36% is typical of present day **coal** fired plants) and at about a 20% **lower cost** of electricity. The process can utilise a wide range of fuels ranging from low quality petroleum coke to high sulphur **coal**, all with high efficiency, **minimum** emissions, and reduced capital **costs**.

Foster Wheeler claims to offer the cleanest combustion technology for any solid fuel and it...

14/3,K/10 (Item 6 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

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05151447 Supplier Number: 47863065 (USE FORMAT 7 FOR FULLTEXT)

A steamy new power plant era

Crown, Judith

Crain's Chicago Business, p1

July 28, 1997

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Tabloid; Trade

Word Count: 764

... of electric power generation plants,' says Director John Mead. 'The demand is there - people want **low - cost** energy.

Early-stage proposals

At least two engineering firms are weighing clean- **coal** projects.

Chicago-based Sargent & Lundy LLC plans to build a pilot plant near Elkhart, north...

...a great deal of preliminary work,' he says.

Other firms, such as Kansas City-based **Black & Veatch**, Parsons Engineering Science Inc. of California and the engineering unit of Duke Power Co. of...

14/3,K/11 (Item 7 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

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04937991 Supplier Number: 47256597 (USE FORMAT 7 FOR FULLTEXT)

Elec. Deregulation Offers Food Retailers Potential for Big Cost Savings

Morford, James C.

Energy User News, p56

April, 1997

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Tabloid; Trade

Word Count: 1136

... have a special concern about the environmental effects of energy deregulation. If the competition for **low - cost electric generation** results in increased **production** from **coal**-fired **generating** facilities to our west, the resulting air transport of pollutants could cause us serious air **quality** problems. In New Jersey at the present time, we could close down all of our...

14/3,K/12 (Item 8 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

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04883196 Supplier Number: 47182980 (USE FORMAT 7 FOR FULLTEXT)

PSE&G Proposes Emissions Disclosure And Trading Scheme

Energy Daily, pN/A

March 4, 1997

Language: English Record Type: Fulltext

Document Type: Newsletter; Trade

Word Count: 411

... to ensure that deregulation does not lead to a deterioration of New Jersey's air **quality**. In particular, the utility charges that increased **operation** of **low - cost coal**-burning **power** plants in the Midwest

could lead to greater air pollution being blown over New Jersey...

14/3,K/13 (Item 9 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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04486752 Supplier Number: 46586834 (USE FORMAT 7 FOR FULLTEXT)
Mine-mouth power plant operates efficiently
Electric Light & Power, p20
August, 1996
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 975

... is owned and operated by Black Hills Power and Light Co. and was constructed by **Black** and **Veatch** .

The 80 MW plant is located just outside of Gillette, Wyo., at the mouth of the Wyodak **coal** mine, the source of some of the **lowest cost coal** in North America. The mine is owned by Wyodak Resources Development Corp., a subsidiary of...

...day at full power and keeps only a five- to six-day supply of mined **coal** on hand at any time, said Stalcup.

Besides the **low fuel cost** , operating efficiency also contributes to the plant's **low - cost** production. Stalcup said 98 percent of the plant's equipment can be controlled from its...

14/3,K/14 (Item 10 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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03970189 Supplier Number: 45757312
PFBC success sets stage for second generation
Power Engineering, p15
Sept, 1995
Language: English Record Type: Abstract
Document Type: Magazine/Journal; Trade

ABSTRACT:

...bed combustion (PFBC) technology allows efficient, inexpensive and environmentally friendly power generation from coal. These **qualities** are likely to appeal to **electricity** utilities, whether or not **coal** -combustion technology (CCT) research is subsidized. PFBC boilers can provide up to 39% efficiency in first- **generation** systems and **lower costs** , at around \$300/kW less, than conventional pulverized- **coal** boilers with flue-gas desulfurization. ...

14/3,K/15 (Item 11 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

03906825 Supplier Number: 45633275 (USE FORMAT 7 FOR FULLTEXT)
POTOMAC EDISON \$45.4 MIL JUNIOR SUBORDINATED DEBENTURES RATED 'A' BY FITCH
-- FITCH FINANCIAL WIRE --
PR Newswire, pN/A
June 27, 1995
Language: English Record Type: Fulltext

Document Type: Newswire; Trade
Word Count: 396

... 1 (least vulnerable to competition) to 5 (most vulnerable) which indicates potential change in credit **quality** .
Furthermore, the ratings reflect the company's steadily improving financial profile, competitive **electric** rates, **low - cost coal** -fired **generating** capacity, decreased construction requirements, limited regulatory uncertainty, and the management and financial resources of Allegheny...

14/3,K/16 (Item 12 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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03895232 Supplier Number: 45609531 (USE FORMAT 7 FOR FULLTEXT)
MONONGAHELA POWER \$40 MILLION JUNIOR SUBORDINATED DEBENTURES RATED 'A'
PR Newswire, pN/A
June 15, 1995
Language: English Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 366

... 1 (least vulnerable to competition) to 5 (most vulnerable) and indicates potential change in credit **quality** .
The company has a steadily improving financial profile, competitive **electric** rates, **low - cost coal** -fired **generating** capacity, decreased construction requirements, limited exposure to regulatory uncertainty, and the management and financial resources...

14/3,K/17 (Item 13 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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03887104 Supplier Number: 45592440 (USE FORMAT 7 FOR FULLTEXT)
WEST PENN POWER \$70 MILLION JUNIOR SUBORDINATED DEBENTURES RATED 'A' BY FITCH
PR Newswire, pN/A
June 6, 1995
Language: English Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 373

... 1 (least vulnerable to competition) to 5 (most vulnerable) and indicates potential change in credit **quality** .
The company has a steadily improving financial profile, competitive **electric** rates, **low - cost coal** -fired **generating** capacity, decreased construction requirements, limited exposure to regulatory uncertainty, and the management and financial resources...

14/3,K/18 (Item 14 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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02506712 Supplier Number: 43314132
Ashland Coal - Company Report
Investext, pl-3
Sept 21, 1992
Language: English Record Type: Abstract
Document Type: Magazine/Journal; Trade

ABSTRACT:

SHEARSON LEHMAN BROTHERS, INC. report by Villagran, R.A.
Ashland **Coal** is a Central Appalachian **low - cost producer** of high **quality**, **low** -sulfur **coal**. The company possesses a strong market position in serving **electric** utilities in the eastern U.S. and Europe, and is a likely beneficiary of acid...

14/3,K/19 (Item 15 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

01652358 Supplier Number: 42046830
Coal quality analysis linked to power plant control
Power Engineering, p29
May, 1991
Language: English Record Type: Abstract
Document Type: Magazine/Journal; Trade

ABSTRACT:

...solve coal-related difficulties, according to Dan Mitas, member of the Performance Analysis Section of **Black & Veatch** 's Power Div, and engineering manager for the C-QUEL project, Scott Stallard, **Black & Veatch** project manager for the C-QUEL project, April Anderson-Higgs, member of the Power Technology Group of the Power Division's Professional Services Dept, **Black & Veatch**, and David O'Connor, project manager with the Electric Power Research Institute. The new C...

...monitoring systems. The software will also have the possibility to aid in the reduction of **operating costs** and **optimize power plant operations**. The software system will have a real-time advisory plant optimization system for **coal** -fueled **power** facilities. It will allow utilities to obtain data about **quality** of coal before it is burned, estimate possible impacts on plant operation, and supply suggestions...

14/3,K/20 (Item 1 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter
(c) 2003 The Dialog Corp. All rts. reserv.

07346273 (USE FORMAT 7 OR 9 FOR FULLTEXT)
Energy plants opt for gas power
SECTION TITLE: News
Bela Fincziczki
BUDAPEST BUSINESS JOURNAL
September 13, 1999
JOURNAL CODE: WBBJ LANGUAGE: English RECORD TYPE: FULLTEXT
WORD COUNT: 783

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... for both Bakony power plants can be purchased both here and abroad.

But while domestic **coal** was of **low quality**, the **cost** of importing fuel **coal** is extremely high. He said the Inota plant currently **produces** one kilowatthour of **electricity** for Ft 21 (\$0.08), while the average production price in the country is around...

14/3,K/21 (Item 1 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

12122581 SUPPLIER NUMBER: 59601783 (USE FORMAT 7 OR 9 FOR FULL TEXT)
IEA Coal Research report on Ash Behaviour. (coal industry research) (Brief Article)

Energy Report, 27, 1, 11
Jan, 2000

DOCUMENT TYPE: Brief Article ISSN: 0093-7657 LANGUAGE: English

RECORD TYPE: Fulltext

WORD COUNT: 121 LINE COUNT: 00013

TEXT:

Internationally traded **coal** is readily available at relatively **low cost** from a variety of suppliers. In this competitive environment long-established **coal quality** criteria are being re-examined. **Power station operators** need to be confident that they can adequately predict the consequences of using an unfamiliar...

14/3,K/22 (Item 2 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

10055285 SUPPLIER NUMBER: 20366063 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Power plants go modular. (includes related article on computer information management systems)

Schimmoler, Brian K.

Power Engineering, v102, n1, p14(5)

Jan, 1998

ISSN: 0032-5961 LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 2569 LINE COUNT: 00220

... plant modularization concept through its PowerLine suite of modularized power plants. PowerLine consists of ten, **low - cost**, standard plant designs (models): four gas-fired combined cycle plants, one gas-fired cogeneration plant, four pulverized- **coal** plants and one petroleum coke-fired fluidized bed plant. Capacities range from 80 MW up...programs or systems in place for managing and coordinating power plant design and construction efforts. **Black & Veatch** uses POWRTRAK. Siemens relies on the SIGMA IT system. And Bechtel uses its Project Works...

...only select individuals and groups with specific project responsibilities have write access," said Brad Vaughan, **Black & Veatch** manager of office operations for power. When the plant designers make a change - a different...

14/3,K/23 (Item 3 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

09452348 SUPPLIER NUMBER: 19253114 (USE FORMAT 7 OR 9 FOR FULL TEXT)

City leaders adopt 1997 legislative action priorities. (Transcript)

Nation's Cities Weekly, v20, n11, p5(1)

March 17, 1997

DOCUMENT TYPE: Transcript

ISSN: 0164-5935

LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 1590 LINE COUNT: 00140

... control standards so that price benefit advantages in a competitive market that may attend certain **low cost** /high emission **power products**, such as **coal** plants, not result in degradation of air **quality** or other environmental damage.

#5 Building Safer Cities

Public safety continues to be a top...

14/3,K/24 (Item 4 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB

(c)2003 The Gale Group. All rts. reserv.

09157403 SUPPLIER NUMBER: 18939358 (USE FORMAT 7 OR 9 FOR FULL TEXT)

GPU seeks bids. (GPU Genco; Pennsylvania coal fired power plants)

Coal & Synfuels Technology, v17, n40, p4(1)

Oct 11, 1996

ISSN: 0883-9735

LANGUAGE: English

RECORD TYPE: Fulltext

WORD COUNT: 272 LINE COUNT: 00022

... technology supplied by Foster Wheeler Energy Corp., and reduce the power rating to 212 MW. **Black & Veatch** will be part of a joint venture with GPU and Foster Wheeler to develop the project. Fuel will be mostly waste **coal** with newly mined **coal** as a back-up.

GPU says the repowered plant will be "one of the **lowest cost** fossil units in the Pennsylvania-New Jersey-Maryland Interconnection system." GPU expects excess capacity at...

14/3,K/25 (Item 5 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB

(c)2003 The Gale Group. All rts. reserv.

09138352 SUPPLIER NUMBER: 18913283 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Mine-mouth facility operates efficiently. (Black Hills Power and Light Co.'s new Neil Simpson Unit 2 power plant in Gillette, Wyoming) (Special Centennial Issue)

Hansen, Teresa

Power Engineering, v100, n11, p12(2)

Oct, 1996

ISSN: 0032-5961

LANGUAGE: English

RECORD TYPE: Fulltext

WORD COUNT: 686 LINE COUNT: 00054

TEXT:

...is owned and operated by Black Hills Power and Light Co. and was constructed by **Black & Veatch**. The 80 MW plant is located just outside of Gillette, Wyo., at the mouth of the Wyodak **coal** mine, the source of some of the **lowest cost coal** in North America. The mine is owned by Wyodak Resources Development Corp., a subsidiary of...

... day at full power and keeps only a five- to six-day supply of mined **coal** on hand at any time, said Stalcup.

Operating efficiency also contributes to the plant's **low - cost** production. Stalcup said 98 percent of the plant's equipment can be controlled from its...

14/3,K/26 (Item 6 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

08924977 SUPPLIER NUMBER: 18636175 (USE FORMAT 7 OR 9 FOR FULL TEXT)

CQ Inc. writes another check to DOE. (repayment of the Dept. of Energy's investments in a clean coal technology project)

Coal & Synfuels Technology, v17, n31, p3(2)

August 9, 1996

ISSN: 0883-9735

LANGUAGE: English

RECORD TYPE: Fulltext

WORD COUNT: 523

LINE COUNT: 00043

... 75,000 and \$100,000, is an "expert" system for a personal computer that provides **coal** -burning utilities with information on the "**lowest - cost**" clean **coals** . It was designed to demonstrate the economic and environmental benefits of using higher **quality** U.S. **coals** to **produce power** .

Last month DOE Secretary Hazel O'Leary touted the CQE CCT project the top milestone...

...this past winter (C&ST 1/8). Other project sponsors include: ABB Combustion Engineering Inc.; **Black** and **Veatch** ; Babcock and Wilcox; Guild Products Inc.; the Electric Power Research Institute; the Energy and Environmental...

14/3,K/27 (Item 7 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

08919536 SUPPLIER NUMBER: 18599850 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Mine-mouth power plant operates efficiently. (Black Hills Power and Light Co's coal-fired power plant)

Hansen, Teresa

Electric Light & Power, v74, n8, p20(2)

August, 1996

ISSN: 0013-4120

LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 1021

LINE COUNT: 00081

TEXT:

...is owned and operated by Black Hills Power and Light Co. and was constructed by **Black** and **Veatch** .

... MW plant is located just outside of Gillette, Wyo., at the mouth of the Wyodak **coal** mine, the source of some of the **lowest cost coal** in North America. The mine is owned by Wyodak Resources Development Corp., a subsidiary of...

...day at full power and keeps only a five- to six-day supply of mined **coal** on hand at any time, said Stalcup.

Besides the **low fuel cost** , operating efficiency also contributes to the plant's **low - cost** production. Stalcup said 98 percent of the plant's equipment can be controlled from its...

14/3,K/28 (Item 8 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

08656943 SUPPLIER NUMBER: 18255022 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Flexible fuel handling for fuel flexibility. (includes related article on Clover power station's control system) (Feul Handling, part 1) (Cover Story)

Blauwiel, Bill; Bockelman, Paul; Stoeckle, Jim

Power Engineering, v100, n3, p15(4)

March, 1996

DOCUMENT TYPE: Cover Story

ISSN: 0032-5961

LANGUAGE: English

RECORD TYPE: Fulltext

WORD COUNT: 2803 LINE COUNT: 00241

TEXT:

...The plant was constructed on a turnkey basis by a consortium of companies consisting of **Black & Veatch**, ABB, Westinghouse and H. B. Zachry.

... unusually high number of redundancy provisions and other features to help assure high plant availability and low maintenance costs.

Facility overview

The plant is fueled with 1.3-percent sulfur coal (based on annual average) from Virginia and West Virginia. Each of the duplicate units has ...a variety of sources, and that gives it a competitive advantage.

Key suppliers

Architect/Engineer

Black & Veatch

Constructor

H. B. Zachry Co.

Turbine-generator

Westinghouse Electric Corp.

Steam generator

ABB Combustion Engineering...

standard WDPF graphic packages were provided (alarm line listing, trending, etc.).

Faceplates were developed by **Black & Veatch** in conjunction with the owner to promote operator ergonomics. These faceplates feature color standardization, starting...

...the specific text message alarm.

Bill Blauwiel is a project civil/structural engineer in the **Black & Veatch** Power Division. Blauwiel joined **Black & Veatch** in 1979 and is responsible for the civil/structural engineering for a number of projects...

...registered professional engineer in Kansas.

Paul Bockelman is a partner and project manager in the **Black & Veatch** Power Division. Bockelman joined **Black & Veatch** in 1965 and is responsible for coordinating engineering, commercial and technical aspects for a variety...

...registered professional engineer in four states.

Jim Stoeckle is a project control engineer in the **Black & Veatch** Power Division. He joined **Black & Veatch** in 1976. Stoeckle is responsible for control system engineering on a number of projects. He...

14/3,K/29 (Item 9 from file: 148)

DIALOG(R) File 148:Gale Group Trade & Industry DB

(c)2003 The Gale Group. All rts. reserv.

08478329 SUPPLIER NUMBER: 17843191 (USE FORMAT 7 OR 9 FOR FULL TEXT)

The greenhouse debate: economic efficiency, burden sharing and hedging strategies.

Manne, Alan; Richels, Richard

Energy Journal, v16, n4, p1(37)

Fall, 1995

ISSN: 0195-6574

LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 8444 LINE COUNT: 00692

... in a set of appendices (available upon request).

A bottom-up approach is used to **model** the energy supply sector. For each scenario, a least-cost choice is made among specific physical activities for the generation of **electricity** and for the **production** of nonelectric energy. The fossil fuels (oil, gas and **coal**) are each viewed as exhaustible resources. There are limits upon individual types of **low - cost** renewable energy such as hydroelectricity. There are introduction constraints on new technologies - both those that...

14/3,K/30 (Item 10 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

07928230 SUPPLIER NUMBER: 17057132 (USE FORMAT 7 OR 9 FOR FULL TEXT)
MONONGAHELA POWER \$40 MILLION JUNIOR SUBORDINATED DEBENTURES RATED 'A' BY
FITCH -- FITCH FINANCIAL WIRE --
PR Newswire, p615NY061
June 15, 1995
LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 398 LINE COUNT: 00036

... 1 (least vulnerable to competition) to 5 (most vulnerable) and indicates potential change in credit **quality**.

The company has a steadily improving financial profile, competitive **electric** rates, **low - cost coal** -fired **generating** capacity, decreased construction requirements, limited exposure to regulatory uncertainty, and the management and financial resources...

14/3,K/31 (Item 11 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

07905176 SUPPLIER NUMBER: 16984063 (USE FORMAT 7 OR 9 FOR FULL TEXT)
WEST PENN POWER \$70 MILLION JUNIOR SUBORDINATED DEBENTURES RATED 'A' BY
FITCH -- FITCH FINANCIAL WIRE --
PR Newswire, p606NY082
June 6, 1995
LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 399 LINE COUNT: 00036

... 1 (least vulnerable to competition) to 5 (most vulnerable) and indicates potential change in credit **quality**.

The company has a steadily improving financial profile, competitive **electric** rates, **low - cost coal** -fired **generating** capacity, decreased construction requirements, limited exposure to regulatory uncertainty, and the management and financial resources...

14/3,K/32 (Item 12 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

07885760 SUPPLIER NUMBER: 16930247 (USE FORMAT 7 OR 9 FOR FULL TEXT)
ALLEGHENY POWER UNITS' JUNIOR SUBORDINATED DEBENTURES RATED 'A' BY FITCH --
FITCH FINANCIAL WIRE --
PR Newswire, p526NY037

May 26, 1995

LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT

WORD COUNT: 387

LINE COUNT: 00038

... 1 (least vulnerable to competition) to 5 (most vulnerable), which indicates potential change in credit **quality**.

The ratings reflect the individual company's steadily improving financial profile, competitive **electric** rates, **low - cost coal** -fired **generating** capacity, decreased construction requirements, limited exposure to regulatory uncertainty, and the management and financial resources...

14/3,K/33 (Item 13 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB

(c)2003 The Gale Group. All rts. reserv.

06383744 SUPPLIER NUMBER: 13393361 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Florida PSC rejects coal-fired power plant. (Public Services Commission; Cypress Energy project)

Hoske, Mark T.

Electric Light & Power, v71, n1, p3(2)

Jan, 1993

ISSN: 0013-4120

LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT; ABSTRACT

WORD COUNT: 534

LINE COUNT: 00042

TEXT:

TALLAHASSEE, Fla.--The Florida Public Service Commission rejected a major pulverized- **coal** -fired independent power project and suggested a **lower - cost**, combined-cycle, natural gas-fired alternative.

... purchased power.

Project future in doubt

Cypress Energy Partners, the developer which links subsidiaries of **Black & Veatch** and Northern States Power Co. was disappointed. With the project in doubt, Cypress, like FPL...

14/3,K/34 (Item 14 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB

(c)2003 The Gale Group. All rts. reserv.

06229192 SUPPLIER NUMBER: 12457223 (USE FORMAT 7 OR 9 FOR FULL TEXT)

New cogeneration and other non-utility power plants.

Reynolds, Mona

Power Engineering, v96, n7, p23(8)

July, 1992

ISSN: 0032-5961

LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT

WORD COUNT: 5295

LINE COUNT: 00417

... shipments needed to finance the installation of the bulk cargo unloader. The unloader will provide **low - cost** unloading of other bulk cargoes on Oahu.

The **coal** will be carried from the harbor to the plant in a pipe conveyor. This conveyor...

...of Ahlstrom. The prime construction contractor is Hawaiian Dredge and Construction. Construction management is by **Black & Veatch**.

BUFFALO:

Combined-cycle plant uses new low-emissions combustor

An \$87-million cogeneration facility, built...construction services and balance-of-plant equipment. Metric also is providing detailed design

services through **Black & Veatch** .

Power from the plant will be sold to Seminole Electric Cooperative and Tampa Electric Co...sawmill.

The Grayling project is scheduled for commercial operation during the third quarter of 1992. **Black & Veatch** Power Development Corp., a subsidiary of **Black & Veatch** , is the turnkey contractor. Construction is being managed by TBC, a joint venture of Townsend & Bottum Inc. and the Christman Co.

In its design of the project, **Black & Veatch** utilized approaches developed for much larger utility power designs, including 3-D computer modeling. This...

...hours of operation.

Westinghouse is responsible for the total turnkey project; it has subcontracted with **Black & Veatch** for the balance of plant engineering, BOP procurement, and construction. B&V has subcontracted to...

14/3,K/35 (Item 15 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

05915403 SUPPLIER NUMBER: 12380825 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Action builds on the road to CAA compliance. (Clean Air Act; managing electric power plant emissions) (Part 2)

Rittenhouse, R.C.

Power Engineering, v96, n6, p43(4)

June, 1992

ISSN: 0032-5961

LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT

WORD COUNT: 3464 LINE COUNT: 00281

... challenge for the best of fuel procurement staffs. Uncertainty rises as theories on the future **cost** of **low** sulfur **coals** , for example, range from moderate to astronomical increases. **Coal** transportation costs could go up or down.

However, the new "EPRI Report Series on Low...Acid Rain Advisor to Evaluate Compliance Strategies," G. S. Stallard and A. A. Anderson of **Black & Veatch** - Architects Engineers. POWER-GEN '91.

Proceedings: 1991 Annual Meeting & Exhibition of Air & Waste Management Assn.

14/3,K/36 (Item 16 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
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05783074 SUPPLIER NUMBER: 11855638 (USE FORMAT 7 OR 9 FOR FULL TEXT)

New fuel choices change coal handling and storage rules. (includes related information on coal handling equipment upgrades) (part 2)

Rittenhouse, R.C.

Power Engineering, v96, n2, p39(4)

Feb, 1992

ISSN: 0032-5961

LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT

WORD COUNT: 3508 LINE COUNT: 00278

... them is Daniel Mahr, who describes the latest unconventional fuel to arouse industry interest -- bitumen (**coal** /oil) emulsions. First, they are "a different animal than **coal** . They are a **lower cost** replacement fuel for a plant that is designed to burn oil." However, use of at...

...everyone

A software program, known as the Coal Quality Expert (CQE), is being developed by **Black & Veatch** for the DOE and EPRI under the Clean Coal Technology Program. It will incorporate about...

...of changing coals or modifying combustion processes. The overall program will be available commercially through **Black & Veatch** and CQ, Inc. when complete in 1994.

Another computer model can calculate flow patterns, coal...with 1% moisture, 0.3% sulfur content, and 12,000 Btu/lb heating value. Transportation **costs** will be **lower** and handling should be enhanced because of the changes in properties.

Coal transportation costs

One more thought on **coal** switching: There are a variety of risks extant in fuel switching decisions. Transportation costs top...

...Research Institute (EPRI). The report focuses on issues that develop when power plants switch to **low** -sulfur **coals** ; a **cost** that could reach \$1 billion annually for the industry.

This 160-page document is the...

14/3,K/37 (Item 17 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

05783070 SUPPLIER NUMBER: 11855502 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Fast-track, low-cost construction starts with the owner.

Smock, Robert

Power Engineering, v96, n2, p19(5)

Feb, 1992

ISSN: 0032-5961

LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT

WORD COUNT: 4840

LINE COUNT: 00388

... be an integral part of design, engineering, and the project contracting approach.

A study of **low - cost** utility **coal** -fired power plants built during the period 1984-1988 showed, reported John Stamberg, vice president ...

...Energy Ventures Analysis, Inc. at the EPRI conference, that "The most important common element to **lower** construction **cost** appeared to be a 'tight-fisted' utility attitude early in the planning stages of the **coal** -fired power plant construction." His firm was hired by EPRI to study the limited amount...

...the 1980s to see what could be learned.

Stamberg's firm looked at 12 large **coal** -fired units that came on line between 1984 and 1988. Reported installed construction **cost** varied widely, from a **low** of \$423/kW for Kentucky Utilities' Ghent Unit 4 to \$1514/kW for New York...

...Stamberg.

Fast-track cogen projects

One of the most striking examples of the fast-track, **low - cost** non-utility approach to **coal** -fired plant construction is Cogentrix, Inc. The firm constructs standardized, 220-MW **coal** -fired cogeneration plants composed of four 55-MW modules in less than 18 months at...most of the plant can simplify and improve the execution of power plant projects, says **Black & Veatch** construction manager Curtis Cooper. "The cost control

aspect of lump-sum competitive bidding is retained...

...can be used in conjunction with fast-track, lump-sum construction as was done by **Black & Veatch** on the AES Barbers Point cogen plant in Hawaii.

14/3,K/38 (Item 18 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
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05586188 SUPPLIER NUMBER: 11273720 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Dairyland PCFB will use hot gas cleanup. (in the DMEC-1 project in Des Moines, Iowa) (Dairyland Power Cooperative, pressurized circulating fluidized bed)

Provol, Steve

Modern Power Systems, v11, n8, p47(3)

August, 1991

ISSN: 0260-7840 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT

WORD COUNT: 2036 LINE COUNT: 00163

TEXT:

A project team of Iowa Power, Dairyland Power Cooperative, Engineers-Architects **black & Veatch** and Pyropower Corp. have embarked on a utility scale demonstration of pressurized circulating fluidized bed

...

... the fuel in the lower combustor region.

Limestone sorbent will also be blended with the **coal** for absorption of [SO.sub.2] emissions. Blending sorbent with the **coal** reduces **costs** by **minimizing** the size of the sorbent trim feed system.

The sorbent trim system. The sorbent trim...

14/3,K/39 (Item 19 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

05580779 SUPPLIER NUMBER: 11812817 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Biggest growth in UK, Italy, Germany and Turkey. (International Energy Agency forecasts for use of natural gas in electricity generation)

Gas World International, v196, n4876, p21(2)

Dec, 1991

ISSN: 0960-1635 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT

WORD COUNT: 1247 LINE COUNT: 00093

... by variable operating costs, availability, terms of gas supply and other short and middle term **operating** characteristics .

Gas turbines typically have **low** up front capital **costs** and high variable fuel costs. **Coal** and nuclear plants typically have high up front capital **costs** and **low** variable fuel **costs** .

Accordingly, the capacity factors will be determined by actual **operating** criteria. If **power** plants are dual or multi fired for security reasons, to take account of price changes...

14/3,K/40 (Item 20 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

05413216 SUPPLIER NUMBER: 10986109 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Non-utility power producers will supply near-term capacity. (includes

related article on Association of Professionals Involved with Non-Utility Power Generation)

Smith, Douglas J.

Power Engineering, v95, n7, p17(5)

July, 1991

ISSN: 0032-5961

LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT

WORD COUNT: 3529

LINE COUNT: 00296

... and environmental protection have materialized.

P.J. Adam, assistant managing partner and energy group executive, **Black & Veatch**, Kansas City, Mo., states that two of their recently completed projects--AES Thames 180-MW...

...non-reheat cycle with two 650,000-lb/hr CFB boilers. However, further analysis by **Black & Veatch** in conjunction with steam turbine manufacturers indicated that a reheat turbine would have a 4...

...180 MW. This was achieved with essentially the same boiler mass flow rate, according to **Black & Veatch**. As a result the project's total costs were reduced from a projected \$1550/kW...

...0.07 lb/MBtu

Particulate 0.015 0.012

lb/MBtu

Opacity, % 10 <5

Source: **Black & Veatch**.

The ACE cogeneration facility located in Trona, Calif. has successfully demonstrated that a thermal [DeNO...

...to form elemental nitrogen and water vapor. Both can be discharged without limits.

According to **Black & Veatch**, the [DeNO.sub.x] system has been effective in operation. At full load the unit...and Boise Cascade.

Figure 2 shows how sensitive the cost advantage is of biomass over **coal**. There is a difference in boiler efficiency when burning biomass vs **coal**. As a consequence the **cost** of biomass must be sufficiently **low** to make the multiple fuel capability worthwhile. The breakeven point for 45% moisture-content biomass...

14/3,K/41 (Item 21 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB

(c)2003 The Gale Group. All rts. reserv.

05191304 SUPPLIER NUMBER: 10474523 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Coalgas-fired combined cycle projects multiply. (power-plants)

Smock, Robert W.

Power Engineering, v95, n2, p32(3)

Feb, 1991

ISSN: 0032-5961

LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT

WORD COUNT: 2833

LINE COUNT: 00215

... in mind.

Figure 1 shows an energy cost comparison of new generation technologies done by **Black & Veatch**. It illustrates how IGCC's inherently high efficiency and ability to burn coal cleanly increase its cost competitiveness at larger sizes. The figure uses the large pulverized **coal** unit as the basis for comparison. **Low** fuel **costs** are \$1.00 per million Btu for **coal** and \$2.00 for gas. High fuel costs are \$2.00 for **coal** and \$4.00 for gas.

New projects

Despite the high costs, several large IGCC projects...the construction cost of a mature, air-blown IGCC plant should be only \$1100/kW. **Cost** of electricity should be 15% **lower** than that of a conventional PC plant with FGD, says CRSS Capital.

The Tallahassee plant will burn Eastern **coal** with sulfur contents ranging from 0.5% to 3.5%. Plant heat rate is expected...

14/3,K/42 (Item 22 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

05161012 SUPPLIER NUMBER: 10721458 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Coal quality analysis linked to power plant control. (use of coal quality analysis can reduce operating costs)

Mitas, Dan; Stallard, Scott; Anderson-Higgs, April

Power Engineering, v95, n5, p29(4)

May, 1991

ISSN: 0032-5961

LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT

WORD COUNT: 2752 LINE COUNT: 00230

Incorporating **coal quality** analysis into other plant monitoring and diagnostic systems can reduce **operating costs** and **optimize power plant operations**

On-line analyzers for real-time measurements of **coal properties** are now available and are expected to have widespread application. They make **quality**-based process control possible by identifying changes and trends in coal quality.

Under EPRI funding...host utilities -- Oklahoma Gas and Electric (OG&E) and Pennsylvania Electric (Penelec); two engineering contractors -- **Black & Veatch** and Praxis Engineers; and EPRI. Demonstration of the system will take place at OG&E...Omitted] [Tabular Data Omitted] Dan Mitas is a member of the Performance Analysis Section of **Black & Veatch**'s Power Div. He is the engineering manager for the C-QUEL project. He holds BS and MS degrees in chemical engineering from Iowa State University. Scott Stallard is the **Black & Veatch** project manager for the C-QUEL project. He is the supervisor of the Performance Analysis Section of **Black & Veatch**'s Power Div. He holds BS degrees in mechanical engineering and business administration from Kansas...

...a member of the Power Technology Group of the Power Division's Professional Services Dept., **Black & Veatch**. She holds a BS degree in mechanical engineering from North Dakota State University. David O...

14/3,K/43 (Item 23 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

05104871 SUPPLIER NUMBER: 10360919 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Big steel will go small in '90s. (downsizing of integrated steel plants in the 1990 decade)

Purchasing, v110, n2, p28B1(1)

Feb 7, 1991

ISSN: 0033-4448

LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT

WORD COUNT: 387 LINE COUNT: 00032

... better quality, and cheaper (melted) iron," which will force raw materials buyers to demand better **quality** iron pellets> also, it will

require better (and cleaner) coke-oven and blast-furnace **operating** procedures.

* Accelerated development of direct **coal** -based iron and steelmaking, which uses **lower - cost coal** and iron and **generates electricity** from off-gases.

Why are these trends evident? "In recent years, steel industry investment has...

14/3,K/44 (Item 24 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

03907962 SUPPLIER NUMBER: 07332924 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Virginia Electric new money market cumulative preferred stock rated.
(Virginia Electric and Power Co.) (Fitch Investors Service)
PR Newswire, 0609NY046
June 9, 1989
LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 243 LINE COUNT: 00020

... has shown some signs of deterioration, management is attempting to reduce the pressure in financial **quality** measures by controlling operating costs and actively seeking rate relief. Virginia **Power** has a flexible plan to serve future needs at **minimum cost** through a combination of conservation programs, "uprating" **power** output at existing **generating** units, life extension and **coal** conversion programs, **power** purchases from cogenerators and other utilities, and small additions of company-owned generating capacity.

Recent...

14/3,K/45 (Item 25 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

03705924 SUPPLIER NUMBER: 07170411 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Amax debt rating upgraded. (Duff & Phelps Inc.)
PR Newswire, 1207NY049A
Dec 7, 1988
LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 451 LINE COUNT: 00037

... businesses. Nonetheless, Alumax's primary aluminum costs continue to be higher than the industry's **lowest - cost producers** due to higher **power** rates," stated a D&P spokesman.

"Management's long-run commitment to the **coal** business suggests that the company may be acquiring coal **properties** in coming years. Coal accounts for about 20 percent of revenues. Despite soft industry fundamentals...

14/3,K/46 (Item 1 from file: 160)
DIALOG(R)File 160:Gale Group PROMT(R)
(c) 1999 The Gale Group. All rts. reserv.

01249891
CMR business briefs: Tennessee Valley Authority.
CHEMICAL MARKETING REPORTER September 16, 1985 p. 59

... unit near Paducah, Kentucky, at TVA's Shawnee steam plant. The AFBC process will let **electric** utilities burn cheap high-sulfur, high-ash **coals** without costly flue gas desulfurization systems, while still meeting air **quality** standards. Capital and **operating costs** will be 10-15 percent **lower** than for ordinary **coal** plants with flue gas desulfurization. ...

14/3,K/47 (Item 2 from file: 160)

DIALOG(R) File 160:Gale Group PROMT(R)

(c) 1999 The Gale Group. All rts. reserv.

01185666

More industrial companies consider burning local coal.

COAL AGE April, 1985 p. 27

... British thermal unit, high-sulfur and high-content. Because the boilers can use almost any **quality coal**, industries using FBC will turn to the **lowest - cost product**, which, given **coal** transportation costs, often will be local **coal**. General Motors is turning to FBC to **power** part of its Fisher Body plant in Pontiac, Michigan. Quaker State Oil Refining will replace...

14/3,K/48 (Item 3 from file: 160)

DIALOG(R) File 160:Gale Group PROMT(R)

(c) 1999 The Gale Group. All rts. reserv.

01060333

Leisenring forecasts excess capacity.

Coal Mining & Processing June, 1984 p. 17

... expected to continue for the rest of the 1980s, according to EB Leisenring of Westmoreland **Coal**. Only **coal quality** differentiation and **low - cost production** will result in adequate market advantages for **coal producers** in the years ahead. Growth rate for **electric** utility **coal** consumption will average 2.5 percent per year for the remainder of the decade, and...

14/3,K/49 (Item 1 from file: 354)

DIALOG(R) File 354:EI EnCompassLit(TM)

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0532606 EnCompassLit Document No.: 4133053

Systems approach to emissions reduction from a power (generation) system in India

Author: Chattopadhyay D

Corporate Source: Indira Gandhi Institute of Development Research, India

Source: Energy Sources (ISSN 0090-8312) V16 N.3 425-38 (July-September 1994)

Language: English

ISSN: 0090-8312

CODEN: EGYSAO

Journal Name: Energy Sources

Document Type: JOURNAL ARTICLE

Publication Date: 940700

Abstract:

... A linear programming **modeling model**, INGRID, that **minimizes**

tital cost of electric power generation in coal -burning power plants and alternative energy sources (natural gas, nuclear, hydrothermal) was applied to evaluate the alternative...

14/3,K/50 (Item 2 from file: 354)
DIALOG(R)File 354:Ei EnCompassLit(TM)
(c) 2003 Elsevier Eng. Info. Inc. All rts. reserv.

0357241 EnCompassLit Document No.: 3230925
ACID RAIN CONTROL AND UNITED STATES ENERGY POLICY
Author: STREETS D G; ARGONNE NATIONAL LABORATORY
Corporate Source: ARGONNE NATL. LAB.
Source: ENERGY (ISSN 0360-5442) V9 N.11-12 1049-63 (NOV.-DEC. 1984)
Language: English
ISSN: 0360-5442
CODEN: ENEYDS
Journal Name: Energy
Document Type: JOURNAL ARTICLE
Publication Date: 841100

Abstract:

... The anticipated effects of these acid rain control programs on **electricity** prices, manufacturing industries in the Midwest, continued **operation** of existing **coal** -fired **powerplants** , and **coal** demand; and suggestions by Argonne National Laboratory on **lower - cost** control programs, including targeting SO(sub)2 emission reductions to specific receptor areas based on atmospheric transport **models** , and area-wide and industry-wide bubbles are discussed...

14/3,K/51 (Item 3 from file: 354)
DIALOG(R)File 354:Ei EnCompassLit(TM)
(c) 2003 Elsevier Eng. Info. Inc. All rts. reserv.

0337270 EnCompassLit Document No.: 3105494
THE CO-PRODUCTION OF ELECTRICAL POWER AND METHANOL IN A COAL GASIFICATION PLANT
Author: KELLER A; ADAMS J T
Corporate Source: UNAFFILIATED ; CHEMSHARE CORP.
Source: AICHE 1984 SPRING NATL. MEET. (ANAHEIM, CALIF. 5/20-23/84) PREPR. N.29D 20P
Language: English
Document Type: MEETING PAPER
Publication Date: 840520

Abstract:

... Production of Electrical Power and Methanol in a Coal Gasification Plant was determined by computer **modeling** to be an economic alternative to the conventional pulverized **coal** -fired, steam-cycle **powerplants** , which, besides allowing the use of **low - cost** , high-sulfur **coals** , accommodates variable annual **power** demand by using part of the desulfurized **coal** gas to **produce** methanol during off-peak periods...

14/3,K/52 (Item 4 from file: 354)
DIALOG(R)File 354:Ei EnCompassLit(TM)
(c) 2003 Elsevier Eng. Info. Inc. All rts. reserv.

0293803 EnCompassLit Document No.: 2908628

METHANOL IS THE BEST WAY TO BRING ALASKA GAS TO MARKET

Author: OTHMER D F

Corporate Source: POLYTECH. INST. N.Y.

Source: OIL GAS J. V80 N.44 84-85 (11/1/82)

Language: English

Publication Date: 821101

Abstract:

... and thus would be relatively cheap; methanol-based cars will cost the same as gasoline **models** and have **lower** mileage **costs**; thermal efficiency of an **electricity - generating** gas turbine with a combined methanol cycle is 33% greater than burning **coal** under a boiler in a modern plant and costs 33% less; processes for converting methanol...

14/3,K/53 (Item 5 from file: 354)

DIALOG(R)File 354:Ei EnCompassLit(TM)

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0217309 EnCompassLit Document No.: 2571544

FOSSIL FUEL ECONOMICS

Author: KNUDSEN C W; HEDMAN P O; U S DEPARTMENT OF ENERGY; BRAUN C F + CO

Corporate Source: DEP. ENERGY

Source: 176TH ACS NATL. MEET. (MIAMI BEACH 9/10-15/78) ACS DIV. FUEL CHEM. PREPR. V23 N.3 1-12 (1978)

Language: English

Document Type: MEETING PAPER; REVIEW

Publication Date: 780910

Abstract:

... that coal liquefaction may yield liquid fuels in the \$22 to \$30/bbl range; and **power generation** economics for various combinations of **coal quality**, processing, and **power** cycles, showing **cost** advantages for **low**-sulfur **coal** without flue gas desulfurization, for a slurry of **coal** in fuel oil, for a combined-cycle system burning low-Btu gas, or for fluidized...

14/3,K/54 (Item 1 from file: 624)

DIALOG(R)File 624:McGraw-Hill Publications

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01069124

POWERGEN '99

POWER January/February, 20; Pg 69; Vol. 144, No. 1

Journal Code: POW ISSN: 0032-5929

Section Heading: POWERGEN '99

Word Count: 5,242 *Full text available in Formats 5, 7 and 9*

TEXT:

... with tight tolerances and lengths up to 80 ft.--Vallourec & Mannesmann Inc.

FGD components

Various **models** of slurry pumps, knife gate valves, and hydroclones are used in flue-gas desulfurization (FGD) systems. L-series pump has a proven track record for rugged service in **electric**-utility and **coal**-prep plants. Key to the pump's performance is a combination of heavy-duty construction, extremely **low cost** per hour of **operation**, and **minimal**

downtime for servicing.--Warman International Inc.
Helium leak detectors
Plant owners can improve powerplant efficiency...

14/3,K/55 (Item 2 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications
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01029184

Penn Virginia adds to its Central Appalachian holdings

Coal Week July 5, 1999; Pg 3; Vol. 25, No. 27

Journal Code: COW ISSN: 0149-578X

Section Heading: Industry

Dateline: RADNOR (PA)

Word Count: 347 *Full text available in Formats 5, 7 and 9*

TEXT:

... said, ``Over 50 million tons of the acquired reserves are contiguous with the company's **Coal River properties** and have easy access to the Kanawha River, thus providing **low cost** barge transportation to a number of **electric power generators**. All three **properties** have CSX railway access. Current annual production from the new **properties** is approximately 2.5 million tons and is expected to increase to the five million...

14/3,K/56 (Item 3 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications
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01025384

Black Hills signs engineering firm for new coal-fired plant

Coal Week June 21, 1999; Pg 2; Vol. 25, No. 25

Journal Code: COW ISSN: 0149-578X

Section Heading: Utilities

Dateline: KNOXVILLE

Word Count: 203 *Full text available in Formats 5, 7 and 9*

TEXT:

...adjacent to its Neil Simpson Unit No. 1 near Gillette WY, announced last week that **Black & Veatch**, a Kansas City engineering firm, has been authorized to finalize engineering plans for the project...

... The proposed plant would incorporate the same type equipment as Neil Simpson No. 1, thus **minimizing costs** and insuring reliability, plus the sharing of the site infrastructure and **coal** source will **lower** the complex's overall **costs**, the company said. Wygen No. 1's production cost is projected to be in the...

COMPANY NAMES (DIALOG GENERATED): **Black & Veatch** ; Black Hills Corp ;
Black Hills Generation ; Kansas City

14/3,K/57 (Item 4 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications
(c) 2003 McGraw-Hill Co. Inc. All rts. reserv.

00994160

PRODUCT INFORMATION GUIDE

POWER January/February, 19; Pg 81; Vol. 143, No. 1
Journal Code: POW ISSN: 0032-5929
Section Heading: PRODUCT INFORMATION GUIDE
Word Count: 4,673 *Full text available in Formats 5, 7 and 9*

TEXT:

... to successfully take power, infrastructure, and process projects from concept to completion around the world.-- **Black & Veatch** .

Emissions control

Case study package explains real-time plant optimization solution for emissions control and...Corp.

NO subscript x control

Company's systematic approach to NO subscript x control assures **low - cost** compliance. Brochure describes **low** -NO subscript x burner, modifications to existing burners, and the FlowmasteER adjustable orifice device for balancing **coal** flow among burners.--EER Corp.

NO subscript x control

Software models combustion process and optimizes...Company helps reduce O&M costs, develops least-cost strategies, and manages customer assets profitably.-- **Black & Veatch** .

Process control systems

For over 100 years, company has been a global supplier of process...

COMPANY NAMES (DIALOG GENERATED): Advanced Burner Technologies Corp ; Air Monitor Corp ; Albert Products Inc ; Alborg Industries ; Bechtel Power Corp ; **Black & Veatch** ; Buckman Laboratories International Inc ; Cerrey SA ; Chevron ; Chimney Consultants Inc ; Coade Inc ; Coastal Corp ; Coen...

14/3,K/58 (Item 5 from file: 624)

DIALOG(R)File 624:McGraw-Hill Publications
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00994159

Post Show Report

POWER January/February, 19; Pg S-1; Vol. 143, No. 1
Journal Code: POW ISSN: 0032-5929
Section Heading: POWER-GEN '98
Word Count: 6,990 *Full text available in Formats 5, 7 and 9*

TEXT:

... engineering designer, the company is a turnkey contractor with total engineering, procurement, and construction capability.-- **Black & Veatch** .

Lubricants

Chevron highlights two families of mineral oils among its wide range of lubricants. The...procurement, overhaul support, and environmental support.

Company boasts that many of its plants are the **low - cost** producers nationwide. For example, **costs** have been reduced by 47% at its **coal** -fired Independence Steam Electric station, located in northern-central Arkansas, through process, staffing, and technology...

SPECIAL FEATURE:

...SpA

Photograph: Babcock & Wilcox Co

Photograph: Chromalloy

Photograph: Coen Co

Photograph: Bently Nevada Corp

Photograph: **Black & Veatch**

Photograph: Chevron Products Co

Photograph: Columbia Steel Casting Co
Photograph: Commonwealth Dynamics Inc
Photograph: Crosby...

...COMPANY NAMES (DIALOG GENERATED): Engines ; Ansaldo Energia SpA ; B & W ; Babcock & Wilcox Co ; Bechtel Power Corp ; Bently Nevada Corp ; **Black & Veatch** ; Calpine Corp ; Chevron Products Co ; Coen Co ; Columbia Steel Casting Co ; Commonwealth Dynamics Inc ; Cooper...

14/3,K/59 (Item 6 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications
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00983457

COAL RESEARCH WILL BE PART OF LARGER FUEL TECHNOLOGY VISION AT DOE

Coal Week November 30, 1998; Pg 8; Vol. 19, No. 48

Journal Code: COW ISSN: 0149-578X

Section Heading: WASHINGTON WIRE

Word Count: 774 *Full text available in Formats 5, 7 and 9*

TEXT:

... sustain the nation's current rate of consumption for more than 250 years," he noted.

Coal is the most affordable fuel for large-scale **power generation** -- in the United States, the 12 **lowest cost electric power** plants and 82 of the 100 **lowest cost power** plants are fueled by **coal**, he observed. "But of all the fossil fuels, **coal** faces perhaps the most serious challenges. In the United States, tighter air **quality** regulations for nitrogen oxides, fine particulates and possibly mercury may be applied to fossil fuel...

14/3,K/60 (Item 7 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications
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00982536

SCR gains as NO subscript x compliance loom

POWER November/December 19; Pg 10; Vol. 142, No. 6

Journal Code: POW ISSN: 0032-5929

Section Heading: UPFront: EMISSIONS CONTROL

Word Count: 317 *Full text available in Formats 5, 7 and 9*

TEXT:

... units to comply with these laws. And these are destined for some of the largest, **low - cost coal** plants in the US.

Indicative of this activity is the award to **Black & Veatch**, Kansas City, Mo, by Associated Electric Cooperative Inc (AECI), Springfield, Mo, for what is described...

COMPANY NAMES (DIALOG GENERATED): American Electric Power Co ; Associated Electric Cooperative Inc ; **Black & Veatch** ; Electric Power Research Institute ; Mcilvaine Co ; Nalco Fuel Tech ; Ohio Coal Development Office

14/3,K/61 (Item 8 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications
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00962233

CYPRUS AMAX REPORTS LOWER EARNINGS; WARD ENDORSES POST-SALE COAL ASSETS

Coal Week August 17, 1998; Pg 2; Vol. 24, No. 33

Journal Code: COW

ISSN: 0149-578X

Section Heading: Companies

Word Count: 230 *Full text available in Formats 5, 7 and 9*

TEXT:

... of long term liabilities. This sale leaves us with large, long-lived reserves of excellent **quality coal** with **low production costs** in strong growth regions such as the **Power** River Basin, Colorado, Utah and Pennsylvania."

The company also noted two points with regard to...

14/3,K/62 (Item 9 from file: 624)

DIALOG(R)File 624:McGraw-Hill Publications

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00957706

Technical Information Center: Literature on products and services for powerplant design, operation, and maintenance

POWER July/August 1998; Pg 96; Vol. 142, No. 4

Journal Code: POW

ISSN: 0032-5929

Section Heading: Technical Information Center

Word Count: 4,191 *Full text available in Formats 5, 7 and 9*

TEXT:

... to successfully take power, infrastructure, and process projects from concept to completion around the world.-- **Black & Veatch** .

Energy services

Company is a joint venture of Coastal Corp and West Coast Energy Inc...O&M costs, develop least-cost strategies to optimize generation, and manage customer assets profitably.-- **Black & Veatch** .

Pumps, accessories

L-Series pump has a proven track record for rugged service in electric-utility and **coal** -prep plants. Key to this pump's performance is a combination of its rugged heavy-duty construction, extremely **low cost** per hour of operation, and **minimal** downtime for servicing. These long-lasting pumps feature a ductile iron outer casing, and interchangeable ...

...COMPANY NAMES (DIALOG GENERATED): Research Laboratory Inc ; American Society ; Ansam Metals Corp ; ABB ; Babcock & Wilcox Co ; Bibb & Associates Inc ; **Black & Veatch** ; Buckman Laboratories ; Cerrey SA ; Chevron ; Coade Inc ; Coastal Corp ; Cooper Cameron Corp ; CADWorx/P & ID...

14/3,K/63 (Item 10 from file: 624)

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00948191

IEA STUDY ASSESSES HIGH SULFUR COAL

Coal Week June 15, 1998; Pg 3; Vol. 24, No. 24

Journal Code: COW

ISSN: 0149-578X

Section Heading: In Brief

Word Count: 79 *Full text available in Formats 5, 7 and 9*

TEXT:

As utilities continue to focus on reducing **operating costs**, the option of using cheaper, **lower quality coals**, especially **coals** high in sulfur, is now receiving serious consideration. In a new report, ``Switching to Cheaper **Coals** for **Power Generation** ,'' IEA Coal Research examines various factors affecting the use of cheaper, high sulfur coal, especially...

14/3,K/64 (Item 11 from file: 624)

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00934573

HIGH FOSSIL COST KEEPS NUCLEAR UKRAINE'S LEAST-COST OPTION

Nucleonics Week April 16, 1998; Pg 10; Vol. 39, No. 16

Journal Code: NUC ISSN: 0048-105X

Word Count: 1,094 *Full text available in Formats 5, 7 and 9*

BYLINE:

Pearl Marshall, London

TEXT:

...of that poor maintenance.''

The fuel to run this capacity is costly because Ukraine's **coal** is ``high **cost**, **low quality** ,'' the country being one of the least efficient **coal producers** in the world. Ukraine's **power** sector uses 30% of the country's expensive imported gas to support combustion in its...

...Both completion of K2/R4 and the installation of FBCs have fundamentally the same economic **characteristics**; they tend to be capital-intensive but utilize **low - cost** fuel. The fuel **costs** of **electricity generated** from uranium is around a fifth to a quarter of the fuel cost of **electricity generated** from **coal** and imported gas, according to those who have seen

14/3,K/65 (Item 12 from file: 624)

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00916210

POW-GEN 97

POWER February 1998; Pg S-1; Vol. 142, No. 1

Journal Code: POW ISSN: 0032-5929

Section Heading: POW-GEN 97

Word Count: 9,958 *Full text available in Formats 5, 7 and 9*

TEXT:

... for competitive powerplants and industrial cogeneration, built on a fast-track schedule for fast-track **operating** revenues. **PowerLine** specializes in these areas:

-- Combined cycle. Provides the **lowest** capital and life-cycle **costs** for this highly competitive technology, where price, schedule, and performance go straight to the bottom line.

-- Pulverized **coal**. **Optimization** keeps **costs** down while meeting the most stringent emissions requirements. **Quality** specifications and rugged designs ensure the highest availability.

-- Circulating fluidized bed. Company's record of...

14/3,K/66 (Item 13 from file: 624)

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00898112

MIM ADDS TO COAL MARKET RESOURCES WITH ENTERGY DEAL

Coal Week International October 28, 1997; Pg 1; Vol. 18, No. 43

Journal Code: CWI ISSN: 0149-578X

Section Heading: INDUSTRY

Dateline: BRISBANE

Word Count: 419 *Full text available in Formats 5, 7 and 9*

TEXT:

... that ``coal is plentiful in Queensland and the natural source of the state's baseload **power generation**. The low-sulfur Wandoan **coal**, a very large resource accessible by **low - cost**, open-cut mining, is ideally suited to **electricity generation**.''

Advantageous **coal qualities** cited

``The Wandoan mine will be capable of substantial increases in production not only to...

14/3,K/67 (Item 14 from file: 624)

DIALOG(R)File 624:McGraw-Hill Publications
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00840493

Growing Japanese steam coal trade will see supply and pricing changes

Coal Week International February 18, 1997; Pg 2; Vol. 18, No. 7

Journal Code: CWI ISSN: 0149-578X

Dateline: NEW ORLEANS

Word Count: 835 *Full text available in Formats 5, 7 and 9*

TEXT:

... The continuing deregulation of the Japanese electric power market and the increased role of independent **power** will be a major factor driving electricity **producers** to provide **power** at the **lowest possible cost**. This, in turn, will require **power** providers to be even more attentive to fuel costs, he observed.

In terms of **coal quality**, the third leg of the future coal procurement strategy, Minami pointed to the value of...

14/3,K/68 (Item 15 from file: 624)

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00829001

MARKET ACTIVITY IS LOW: SOURCES

Coal Week January 13, 1997; Pg 5; Vol. 23, No. 2

Journal Code: COW ISSN: 0149-578X

Section Heading: MARKETWATCH: MARKET PERSPECTIVE

Word Count: 552 *Full text available in Formats 5, 7 and 9*

TEXT:

... also agreed that coal availability is down and so are stockpiles at mines, docks and **power** plants.

Strategically, **generators** are working out new ways of buying **coal** to **produce low - cost electricity**. New arrangements such as last year's **coal** tolling deal at Ohio Edison's Burger plant or this year's

market-back agreement...

... major utility said some state regulators will be slow to allow changes from the old **model** of average coal pricing and fuel cost adjustment factors.

Right now, the Pittsburgh seam may...

14/3,K/69 (Item 16 from file: 624)

DIALOG(R)File 624:McGraw-Hill Publications
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00823162

GROUP CLAIMS BENEFITS OF ELECTRICITY DEREGULATION ARE OVERBLOWN

Inside Energy With Federal Lands December 16, 1996; Pg 7; Vol. 21, No. 26

Journal Code: IE ISSN: 0-278-2227

Section Heading: Energy

Word Count: 699 *Full text available in Formats 5, 7 and 9*

BYLINE:

Lira Behrens

TEXT:

... in electricity rates is based on a series of misleading premises, including that all existing **generating** units will have the same **operating characteristics** as **coal** -fired units and that **electric** rates in **low - cost** areas will not be raised to market price.

Johnson, in response to a reporter's...

14/3,K/70 (Item 17 from file: 624)

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00823133

SETTLING IN FOR LONG HAUL, GROUPS PICK UP COALITION-BUILDING EFFORTS

Inside FERC December 16, 1996; Pg 1; Vol. 21, No. 26

Journal Code: FERC ISSN: 0-163-948X

Word Count: 1,767 *Full text available in Formats 5, 7 and 9*

BYLINE:

Tom Tiernan

TEXT:

...CSEF's projected 43% decline in electricity rates is based on misleading premises such as: **electricity** rates in **low - cost** areas will not increase; all **generating** units will have the same **operating characteristics** as **coal** -fired units; consumers will use a constant amount of **electricity** all day and night and throughout the year; and transmission and distribution costs will drop...

14/3,K/71 (Item 18 from file: 624)

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00812904

INDUSTRY RESOURCE GUIDE

Electrical World November 1996; Pg 70; Vol. 210, No. 11

Journal Code: EW ISSN: 0013-4457

Section Heading: INDUSTRY RESOURCE GUIDE

Word Count: 2,296 *Full text available in Formats 5, 7 and 9*

TEXT:

...Scientific-Atlanta Inc.

Powerplants

75 PowerLine is company's pioneering approach to high-quality and **low - cost** power. Based on proven pulverized- **coal** and combined cycle plants, company offers a set of standardized plant designs with complete specifications...

... to quotes from satisfied clients, the document covers everything from proven designs to new technologies.-- **Black & Veatch** .

Software system

79Software supports capture, maintenance, storage, integration, display, and analysis of all types of...

COMPANY NAMES (DIALOG GENERATED): Babcock & Wilcox Co ; Bechtel Power ; **Black & Veatch** ; Cegelec ESCA Corp ; Chubb Group ; Coal Transportation Products ; Consol Inc ; Cormetech Inc ; Corning Inc ; Electric...

14/3,K/72 (Item 19 from file: 624)

DIALOG(R)File 624:McGraw-Hill Publications

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00804133

Power Gen'96

POWER October, 1996; Pg 101; Vol. 140, No. 8

Journal Code: POW ISSN: 0032-5929

Section Heading: Power Products

Word Count: 3,877 *Full text available in Formats 5, 7 and 9*

TEXT:

... satisfied clients, the document covers a range of topics from proven designs to new technologies.-- **Black & Veatch** .

Control systems

115 Control-system upgrades meet needs of vintage gas turbines for reliable startup...Options for NOx control include combustion-system tuning, low-NOx burners, overfire air, reburning (gas, **coal** , or slurry), selective catalytic reduction, and selective non-catalytic reduction. Systems approach assures **low - cost** compliance, company says. --EER Corp.

NOx control

147 Combustion equipment offered by company includes low...

...COMPANY NAMES (DIALOG GENERATED): ABB Combustion Engineering Systems ; ABCO Industries Inc ; ACDC Inc ; Babcock & Wilcox Co ; Bechtel Power Corp ; **Black & Veatch** ; Burns & McDonnell Engineering Co ; Cerrey SA ; Commonwealth Dynamics Inc ; Company 's Power ; Conco Systems Inc...

14/3,K/73 (Item 20 from file: 624)

DIALOG(R)File 624:McGraw-Hill Publications

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0719183

OHIO EDISON COURTS FUEL FLEXIBILITY; COMMODITY-LIKE COAL BUYS SEEN POSSIBLE

Coal Week November 13, 1995; Pg 3; Vol. 21, No. 46

Journal Code: COW ISSN: 0149-578X

Section Heading: INDUSTRY

Word Count: 556 *Full text available in Formats 5, 7 and 9*

TEXT:

... changing the way utilities buy fuel. Where before buyers were primarily interested in locking in **coal quality**, they now will be required to **produce low - cost electricity**, while coping with Clean Air Act compliance, Hyrnick said. Like managers in other industries, buyers...

14/3,K/74 (Item 21 from file: 624)

DIALOG(R)File 624:McGraw-Hill Publications
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0706895

MARKET PERSPECTIVE

Coal Week October 9, 1995; Pg 5; Vol. 21, No. 41
Journal Code: COW ISSN: 0149-578X
Section Heading: MARKETWATCH
Word Count: 705 *Full text available in Formats 5, 7 and 9*

TEXT:

... open markets and retail wheeling, it is certain that more mines will be "stranded" as **electrical generation** shifts toward the **lowest - cost** plants, he said.

In a September speech to securities analysts, Chand Vyas, Zeigler Coal Holdings' president and CEO sketched some **models** for non-traditional coal supply arrangements. One such concept would be a long-term contract...

14/3,K/75 (Item 22 from file: 624)

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0683735

COMED MAKES SHORTLIST TO SUPPLY N.C. CO-OPS WITH BASELOAD POWER

Electric Utility Week July 17, 1995; Pg 15
Journal Code: EUW ISSN: 0046-1695
Section Heading: PLANNING
Word Count: 444 *Full text available in Formats 5, 7 and 9*

TEXT:

... the proposals by the utilities and the developers, but said in general the utilities offered **low - cost** system power and the developers proposed to build either **coal** baseload units or combined-cycle plants fired by natural gas.

A spokesman for Commonwealth Edison...

... competitively secured baseload capacity from American Electric Power beginning in January 1996, and to pay **Black & Veatch** Construction Co. to design, equip and build by 2001 a 330-MW, gas-fired combined...

14/3,K/76 (Item 23 from file: 624)

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0645267

POWER-GEN '94 EQUIPMENT/SERVICES ROUNDUP

POWER February, 1995; Pg S1; Vol. 139, No. 2
Journal Code: POW ISSN: 0032-5929
Section Heading: Special Section
Word Count: 15,953 *Full text available in Formats 5, 7 and 9*

TEXT:

...circuit. The Vertimill, a vertical stirred grinding mill, can save up to 30% on energy **cost**, has **lower** installation and operating **costs**, and operates at a reduced noise level. Company also offers mills for **coal** grinding.--Allis Mineral Systems, Grinding Div.

6 CLEANING, MAINTENANCE

Company has over 17 years of...or even in the same country. Significant design and procurement efforts can be performed anywhere.-- **Black & Veatch**.

17 STEAM-CONDITIONING VALVES

Steam-conditioning valves--combining pressure and temperature reduction in a single...

14/3,K/77 (Item 24 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications
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0621969

ABSTRACTS of conference papers

POWER November, 1994; Pg 41; Vol. 138, No. 11
Journal Code: POW ISSN: 0032-5929
Section Heading: POWER-GEN '94 SHOW PREVIEW
Word Count: 18,474 *Full text available in Formats 5, 7 and 9*

TEXT:

...Energy Policy Act Incentives: Emerging Power Generation Systems

Robert G Ruisch and Robert I Furst, **Black & Veatch**

Future power generation systems will be profoundly influenced by electric-utility-industry issues. Fundamentally, these...alternative for meeting the objectives of future coal-firing applications. When compared to conventional pulverized- **coal** (PC)/scrubber technology, the PCFB can produce a 10-15% higher net plant efficiency at **lower cost**, while meeting the strictest emissions requirements. In addition, PCFB technology is well-suited to the...two years.

Mill Creek Scrubber Upgrades: Laying the Groundwork for Future CAA Compliance

Dan Mitas, **Black & Veatch**, and John Voyles, Louisville Gas & Electric Co

Recent scrubber-system upgrades at the Mill Creek...Impacts of Gas Co-Firing

G Scott Stallard, Todd S Jonas, and Neil C Craig, **Black & Veatch**, and John M Pratapas, Gas Research Institute

The Gas Research Institute has sponsored development of...Coal-Fueled

Cogeneration Project: A Unique Turnkey Project
Michael A Perry and Roger P Lenertz, **Black & Veatch**

The Cedar Bay cogeneration plant provides 250 MW to Florida Power & Light Co, while producing...

...commercial operation date for the facility. On startup, the project will be the largest operating **coal** -gasification combined-cycle (CGCC) plant in the US. The plant will also have the **lowest** capital **cost** in terms of \$/kW of all past and current CGCC demonstration plants. This paper describes...Utility's Answer to Externalities

Myron R Rollins, Theodore P Pintcke, and Michael D Morris, **Black & Veatch**

A new alternative called distributed generation is emerging which gives utilities another opportunity to provide...

... Impacts of Title III Air Toxics Requirements on the Power Generation Industry

Larry R Alfred, **Black & Veatch**

The enactment of the Clean Air Act Amendments of 1990 (CAA) included the provisions of... Operating Costs: Optimizing Your Processes With Automated Engineering Tools and Information Management Systems

Lee Elder, **Black & Veatch**

The economic viability of nuclear power is challenged today by competitive pressures resulting from utility...
...to perform the work necessary to improve performance and ensure safety.

GE Nuclear Energy and **Black & Veatch** have formed a joint venture that combines knowledge of plant design and fleetwide operating experience
...continuous base-load commercial operation.

The Small Combined-Cycle Plant: An Attractive Option
Mike Morris, **Black & Veatch**

In today's generation market, large powerplants and cogeneration projects seize much of the limelight...A Partnership with the Environment

A K Sharma, Kissimmee Utility Authority, and M R Rollins, **Black & Veatch**

Kissimmee Utility Authority (KUA) and the Florida Municipal Power Agency (FMFA) have joined in a...

14/3,K/78 (Item 25 from file: 624)
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0599834

BLACK HILLS P&L AFFILIATE TO BUILD POWER PLANTS FOR WHOLESALE SALES

Electric Utility Week August 29, 1994; Pg 5

Journal Code: EUW ISSN: 0046-1695

Section Heading: POWER MARKETING

Word Count: 378 *Full text available in Formats 5, 7 and 9*

TEXT:

... wholesale power market has become highly competitive, Landguth said the Wygen plant will benefit from **low - cost coal** supplies and other **cost** savings by duplicating Neil Simpson-2. Those advantages, Landguth said, should enable WYGEN to compete effectively in the current market conditions.

WYGEN has engaged **Black & Veatch**, engineers of Kansas City who designed and managed the construction of Neil Simpson-2, to...

14/3,K/79 (Item 26 from file: 624)

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0578380

Natural gas vs coal

Electrical World June, 1994; Pg 28; Vol. 208, No. 6

Journal Code: EW ISSN: 0013-4457

Section Heading: POWER GENERATION

Word Count: 335 *Full text available in Formats 5, 7 and 9*

TEXT:

...base-load electric generation in the US for many years. The abundance of domestically available **low - cost coal** has made it a reliable source of electricity. Today, approximately 55% of the nation's...

...of natural gas and coal, Thomas E. Kalin, Michael P. Alvarado, and Brian P. Spott, **Black & Veatch**.

14/3,K/80 (Item 27 from file: 624)

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0544776

Outage/maintenance management puts information technology to work: The supervisor's bark, 'If it ain't broke, don't fix it,' is being substituted by a computer screen quietly offering an assessment of equipment condition and performance consequences and a menu of corrective options. Trusting the source of information is key

POWER January, 1994; Pg 41; Vol. 138, No. 1

Journal Code: POW ISSN: 0032-5929

Section Heading: SPECIAL SECTION

Word Count: 5,532 *Full text available in Formats 5, 7 and 9*

BYLINE:

Jason Makansi, Executive Editor

TEXT:

... is now blossoming into a full-blown competition among all generating entities to be the **lowest - cost** producer. Outage and maintenance management is an integral contribution to this effort. In fact, staffing levels at electric-utility **coal** -fired plants have been reduced by at total of 8% between 1988 and 1992, and...Sanden, United Energy Services Corp, Atlanta, Ga

1 R G Ruisch and B W Jackson (**Black & Veatch**, Kansas City, Mo), "Availability Improvement Methods and Experience on Independent Power Projects," 1990 ASME Joint...

14/3,K/81 (Item 28 from file: 624)
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0491305

Planning a successful capacity addition

Electrical World June, 1993; Pg 92; Vol. 207, No. 6
Journal Code: EW ISSN: 0013-4457
Section Heading: POWER GENERATION: ANNUAL TECHNICAL LITERATURE DATA BASE
Word Count: 259 *Full text available in Formats 5, 7 and 9*

TEXT:

...base-load electric generation in the US for many years. The abundance of domestically available **low - cost coal** has made it a reliable source of electricity. Today, approximately 55% of the nation's electric energy is generated from **coal** -fueled resources.

Reduced environmental impacts, easier permitting, **lower capital cost**, and higher efficiencies of natural-gas-fueled generating plants have made it increasingly popular. The...

...year 2000: Issues and comparisons, Thomas E. Kalin, Michael P. Alvarado, and Brian P. Spott, **Black & Veatch**.

14/3,K/82 (Item 29 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications
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0453887

Municipal plans nation's first coal-fired unit with SCR: In a bold move, Orlando Utilities Commission (OUC) will become the first US utility to engineer, build, and operate a pulverized-coal-fired unit with selective catalytic reduction (SCR) for NOx-emissions control. The new unit, Stanton-2, is a near-exact replicate of Stanton Unit 1, a 440-MW facility that began commercial service in 1987.

Electrical World January, 1993; Pg 49; Vol. 207, No. 1
Journal Code: EW ISSN: 0013-4457
Section Heading: POWER GENERATION
Word Count: 2,384 *Full text available in Formats 5, 7 and 9*

BYLINE:

Elizabeth A. Bretz, Generation Editor

TEXT:

... were to maintain a 15% capacity reserve margin throughout the 1990s. After further study, the **low - cost** option was Stanton-2, a 440-MW **coal** -fired unit.

"Because OUC doesn't have an engineering or construction division, we rely on...

... in those areas," continues Ksionek. "But we still make the business decisions regarding the project." **Black & Veatch**, Kansas City, Mo, is providing construction management and engineering services for Stanton-2, as it...

14/3,K/83 (Item 30 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications
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0450054

Designing Powerplant 2000

Electrical World July, 1992; Pg 31; Vol. 206, No. 7
Journal Code: EW ISSN: 0013-4457
Section Heading: SPECIAL REPORT
Word Count: 7,156 *Full text available in Formats 5, 7 and 9*

TEXT:

... generating units. According to Robert Ruisch, managing partner and head of the power division at **Black & Veatch**, Kansas City, Mo, "Investor-owned utilities are first determining a need for power, then evaluating...three-dimensional model (Figure 1) for presentation."

Some of the most sophisticated systems, such as **Black & Veatch**'s PowrTrak, are used as a total design platform. PowrTrak is a database-driven system...

... lines improves quality and shortens the time required to build a powerplant. As far as **Black & Veatch** is concerned, design is no longer the critical-path determinant in powerplant construction. Equipment delivery... original design data base is the goal of several systems in the final development stage. **Black & Veatch**'s on-line performance monitor acts as a data collector to input/update a central... environmental advantages. Additionally, the externalities may favor IGCC."

Larry Stoddard, manager of advanced technology projects, **Black & Veatch**, sees IGCC as a front runner among the new technologies, also. "It offers a lower...

...only add trains for higher output.

Van Laar describes a significant unknown he sees in **low - cost coal** gasification as the emissions, particularly air toxins. "But," he adds, "a gasifier with properly designed...

14/3,K/84 (Item 31 from file: 624)
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0436768

ENVIRONMENTAL DEPT. VINDICATED AS FLA. PSC REJECTS CYPRESS COAL-FIRED PROJECT

Utility Environment October 30, 1992; Pg 4
Journal Code: UER ISSN: 1503-9379
Section Heading: State Regulation
Word Count: 518 *Full text available in Formats 5, 7 and 9*

TEXT:

... No. 920520-EQ). The project is a joint-venture between NRG Energy of Minneapolis and **Black & Veatch** Power Development Corp. of Kansas City. Oven asked the commission to approve the need but...

...experts in this proceeding, the ratepayers of FP&L will be burdened with the pulverized **coal** plant's high capital cost," the staff recommendations said.

"Similarly, if the utility builds a **lower** capital **cost** oil/natural gas plant that is not convertible to **coal**, the ratepayers may become straddled with high oil/natural gas fuel cost recovery charges should...
... 1 generating unit, which is considered one of the cleanest coal plants in the country. **Black & Veatch** designed both but the Cypress facility would use newer technology and would have lower sulfur...

14/3,K/85 (Item 32 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications
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0434232

Coal Handling and Preparation: Although the basics remain the same, the many elements comprising coal handling and preparation in the powerplant have taken on a new luster--put there by the 1990 Clean Air Act Amendments

POWER January, 1992; Pg 17; Vol. 136, No. 1
Journal Code: POW ISSN: 0032-5929
Section Heading: Special Report
Word Count: 6,269 *Full text available in Formats 5, 7 and 9*

BYLINE:
Thomas C Elliott, Senior Editor

TEXT:
... conditioning during rail transport. A recent field study suggests that treating the sides of a **coal** car with FCAs could be more effective than treating the **coal** itself.

Barges

Where feasible, barge delivery usually offers the **lowest cost** per ton-mile, whether for **coal** or other bulk materials. As a result, US inland waterways have been extensively developed, with...that stabilize it. End result: Improved performance of the p-c-fired boiler.

A new, **low - cost** dry-cleaning process for removing pyrites from **coal** can be integrated directly into a p-c powerplant, interfacing with existing **coal** bunkers, mills, and burners. It uses a room-temperature, fluidized-bed particle separator to perform...Consulting Engineers Inc; Kevin D Jennison, John H Pavlish, Richard B Rinehart, Richard H McCartney, **Black & Veatch**; William Weber, Electric Power Research Institute.

14/3,K/86 (Item 33 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications
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0356364

DEVELOPER OF U.K. WASTE-TIRE PLANT EXPANDING TO OTHER PARTS OF EUROPE

Independent Power Report January 3, 1992; Pg 9
Journal Code: COG ISSN: 1049-0744
Section Heading: International Power
Word Count: 555 *Full text available in Formats 5, 7 and 9*

TEXT:
... months to build. A joint venture of London's Tarmac Construction and power plant engineer **Black & Veatch** of Kansas City, Mo., was awarded

the construction contract last year.

Later in 1992, Evans...

... of the heating value of natural gas, the waste gas can be mixed with powdered **coal** in an injection process using Japanese or German boiler technology to create an efficient and **low - cost** power generation unit, Adik said.

Development costs are estimated to be about two-thirds of a scrubbed **coal** -fired unit, depending on geographic location. "The **cost** could be as **low** as \$500/kW if a boiler is used, with higher costs if a combined-cycle..."

14/3,K/87 (Item 34 from file: 624)

DIALOG(R)File 624:McGraw-Hill Publications
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0290318

MORGANTOWN ETC TO FUND CCT PROJECTS; DRAVO LIME, CLEMSON TO RECEIVE DOE FUNDS

Coal Week March 18, 1991; Pg 2; Vol. 17, No. 11
Journal Code: COW ISSN: 0149-578X
Section Heading: Clean Coal
Word Count: 476 *Full text available in Formats 5, 7 and 9*

TEXT:

... According to Lawrence Golan, director of the SC Energy R&D Center, gas turbine-based **electrical generating** systems offer the potential to **lower** the **cost** of **electricity**, lessen environmental burdens, and increase the utilization of low **quality** indigenous fuels, particularly **coal**.

He added that gas turbine systems promote high energy efficiency and provide flexible cycle design...

14/3,K/88 (Item 35 from file: 624)

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0260524

NUCOR: ROLLING RIGHT INTO STEEL'S BIG TIME: It took a gamble on a new technology--and the payoff looks huge

Business Week November 19, 1990; Pg 76; Number 3188
Journal Code: BW ISSN: 0007-7135
Section Heading: The Corporation
Word Count: 1,510 *Full text available in Formats 5, 7 and 9*

BYLINE:

Michael Schroeder and Walecia Konrad in Charlotte, N. C.

TEXT:

...During the late 1970s, Nucor, based in Charlotte, N. C., won renown as a gutsy, **low - cost minimill**. **Minimills** use **electric** furnaces to turn scrap into steel, rather than starting from scratch with iron ore and **coal**, as the big integrated **producers** do. But with 20% annual revenue growth that should take the company over the \$2...

...steel industry now confronts a painful consolidation, Nucor is poised to grow. "Nucor is the **model** for steel companies of the future," says John E. Jacobson, a steel analyst at AUS...

14/3,K/89 (Item 36 from file: 624)

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0178421

Gradual rise is calm before storm

Engineering News-Record December 14, 1989; Pg 78; Vol. 223, No. 24
Journal Code: ENR ISSN: 0013-807X
Section Heading: Fourth Quarterly Cost Report: Utility Costs
Word Count: 493 *Full text available in Formats 5, 7 and 9*

BYLINE:

Richard Korman

TEXT:

... Hollrah, the partner who heads the professional services department in the power division of engineer **Black & Veatch**, Kansas City, Mo. "Constructing a dam on a 1,000-ft-wide channel is more...

... down construction costs, may end up sacrificing operating reliability. He recently heard of an extremely **low - cost** plant fueled by pulverized **coal**. "The thing you may find is that there is no maintenance space and no redundancy...

14/3,K/90 (Item 1 from file: 635)

DIALOG(R)File 635:Business Dateline(R)
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0204603 91-26252

Healy Coal: The Stakes Are High

Bradner, Tim

Alaska Journal of Commerce (Anchorage, AK, US), V15 N12 s1 p1

PUBL DATE: 910325

WORD COUNT: 2,141

DATELINE: Healy, AK, US

TEXT:

...to power plants that are capable of using, usually as a mixture, Alaska's low- **quality** sub-bituminous coal.

The systems Usibelli have in mind involve co- **generation**, or **coal** -burning **power** plants matched with dehydration units using waste-heat.

Low - cost energy is essential to the process because various dehydration systems now being studied are very...

14/3,K/91 (Item 1 from file: 636)

DIALOG(R)File 636:Gale Group Newsletter DB(TM)
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03431579 Supplier Number: 47068354 (USE FORMAT 7 FOR FULLTEXT)

Electricity deregulation will depress coal-hauling rail rates, study says

The Energy Report, v25, n4, pN/A
Jan 27, 1997
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 1466

... plants in both the short term and long term. It developed a scenario where the **power generated** and **coal** burned at the highest-cost plants were displaced by the **power** and **coal** from the **lowest - cost** plants. It then **modeled** the impact on railroads based on who served those plants in the 1995 base year.

Coal generally will benefit from **electricity** deregulation because: Coal-fired **generation** is low compared to other forms, and; Coal-fired plants are utilized at only a...

14/3,K/92 (Item 2 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
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03372011 Supplier Number: 46935958 (USE FORMAT 7 FOR FULLTEXT)
Group Challenges Degreg Savings
Energy Conservation News, v19, n5, pN/A
Dec 1, 1996
Language: English Record Type: Fulltext
Document Type: Newsletter; Trade
Word Count: 625

... decline in electricity rates is based on a series of misleading premises including all existing **generating** units will have the same **operating characteristics** as **coal** -fired units; **electric** rates in **low cost** areas will not be raised to market price; consumers will be induced to use as...

14/3,K/93 (Item 3 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
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03301578 Supplier Number: 46779982 (USE FORMAT 7 FOR FULLTEXT)
PUC proposed full retail choice by 2004
The Energy Report, v24, n39, pN/A
Oct 7, 1996
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 1468

... Energy Corp., and result in a new power rating for the plant of 212 MW. **Black & Veatch** would also be part of a joint venture with GPU and Foster Wheeler to develop...

...engineering services. Fuel would mostly be waste coal. Back-up supply would be newly mined **coal**.

GPU is telling prospective bidders that a re-powered plant would be one of the **lowest cost** fossil units in the Pennsylvania-New Jersey-Maryland Interconnection system. GPU expects that excess capacity...

14/3,K/94 (Item 4 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)

(c) 2003 The Gale Group. All rts. reserv.

03301251 Supplier Number: 46778732 (USE FORMAT 7 FOR FULLTEXT)

GPU sees different futures for Warren, Seward

Coal Outlook, v20, n39, pN/A

Oct 7, 1996

Language: English Record Type: Fulltext

Document Type: Newsletter; Trade

Word Count: 410

... Energy Corp., and result in a new power rating for the plant of 212 MW. **Black & Veatch** also will be part of a joint venture with GPU and F-W to develop...

...and engineering services. Fuel mostly will be waste coal. Back-up supply is newly mined **coal**.

GPU is telling prospective bidders that a repowered plant will be "one of the **lowest cost** fossil units in the Pennsylvania-New Jersey-Maryland Interconnection system." GPU expects excess capacity at...

14/3,K/95 (Item 5 from file: 636)

DIALOG(R)File 636:Gale Group Newsletter DB(TM)

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02969967 Supplier Number: 46049937 (USE FORMAT 7 FOR FULLTEXT)

CQE completes its 'soft' CCT program

Coal & Synfuels Technology, v17, n1, pN/A

Jan 8, 1996

Language: English Record Type: Fulltext

Document Type: Newsletter; Trade

Word Count: 373

(USE FORMAT 7 FOR FULLTEXT)

TEXT:

Project sponsors of a clean **coal** software demonstration that use computers to help utilities find -- and buy -- the "**lowest cost** clean **coals** to fit its needs has finished its tour of duty.

... and together as a software package.

He told Coal and Synfuels Technology CQ Inc. and **Black and Veatch**, another team member, already sold two Acid Rain Advisors to two utilities. However, at the...

14/3,K/96 (Item 6 from file: 636)

DIALOG(R)File 636:Gale Group Newsletter DB(TM)

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02823757 Supplier Number: 45727055 (USE FORMAT 7 FOR FULLTEXT)

Duke Power seeks quick response to inquiry

Coal Outlook, v19, n31, pN/A

August 14, 1995

Language: English Record Type: Fulltext

Document Type: Newsletter; Trade

Word Count: 567

... 38 grind.

While these obviously are extremes, Duke is willing to consider the benefits of **lower** prices versus higher **operating costs** on **lower quality coal**. This willingness to push the **coal** spec envelope echoes a

Virginia **Power** term **coal** bid invitation earlier this summer (CO 6/5).
Emissions Allowances: Duke is willing to consider...

14/3,K/97 (Item 1 from file: 637)
DIALOG(R)File 637:Journal of Commerce
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Virginia Coal Producers Scramble to End Falling Exports

JOURNAL OF COMMERCE (JC) - September 22, 1994
By: ELIZABETH J. SHAPIRO Special to The Journal of Commerce
Edition: Five Star Section: SPEC Page: 8A
Word Count: 511

... is high-grade metallurgical coal, used for coking and steel manufacturing. The remainder is lower **quality** steam **coal** used to **produce electricity**.

According to Mr. Zipper, "Australia has been very aggressive," taking advantage of easier access and **lower** transportation **costs** to the Far East, the world's largest metallurgical **coal** market. Japan is the largest single metallurgical importer.

Australia also holds a competitive advantage due...

Set	Items	Description
S1	1014639	COAL? ?
S2	2011	BLACK(1W)VEATCH? OR ROD()HATT
S3	508	S1 AND S2
S4	2407766	COST??? OR PRICE? ?
S5	341	S4 AND S3
S6	90598	S1(S)S4
S7	50723	S6(20N) (PRODUC? OR GENERAT? OR OPERAT?)
S8	18325	S7(10N) (ELECTRIC? OR POWER?)
S9	689	S8(10N)MODEL?
S10	144	S9(15N) (QUALIT? OR CHARACTERISTIC? OR PROPERTIES)
S11	32513	S6(7N) (PRODUC? OR GENERAT?)
S12	27376	S11(15N)S1
S13	2327	S12(15N) (QUALIT? OR CHARACTERISTIC? OR PROPERTIES)
S14	599	S13(10N) (ELECTRIC? OR POWER?)
S15	900	(S5 OR S10 OR S14) NOT PY>2000
S16	766	RD (unique items)
S17	758	S16 NOT PD=20000424:20010424

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17/3,K/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6076202 INSPEC Abstract Number: B9812-8230E-021

Title: Development of a flexible fuel strategy utilizing CQIM

Author(s): Anderson-Higgs, A.; Jennison, K.; Hermanas, G.

Author Affiliation: Black & Veatch, Kansas City, MO, USA

Conference Title: Proceedings of the American Power Conference. 58th Annual Meeting 1996. Technology for Competition and Globalization Part vol.2 p.827-31 vol.2

Editor(s): McBride, A.E.

Publisher: Illinois Inst. Technol, Chicago, IL, USA

Publication Date: 1996 Country of Publication: USA 2 vol. (xxii+ xviii+1614) pp.

Material Identity Number: XX98-02359

Conference Title: Proceedings of 58th American Power Conference Annual Meeting

Conference Sponsor: Illinois Inst. Technol

Conference Date: 9-11 April 1996 Conference Location: Chicago, IL, USA

Language: English

Subfile: B

Copyright 1998, IEE

Abstract: For **coal** -fired power generation to remain competitive, utilities must identify technically sound, least **cost** solutions for developing fuel strategies that are economical and readily adaptable to changing market conditions. Balancing the **cost** of fuel, the operating impact of burning a specific **coal** in different boilers, the **cost** of equipment modifications needed to adapt to burning alternate fuels, and improving the overall system-side SO/sub 2/ reduction strategies require careful analysis and study. In 1995, **Black** and **Veatch** (B&V) teamed with Commonwealth Edison (ComEd) to evaluate fuel and capital improvements for ComEd...

... consistently and reduce fuel related outages to acceptable levels. This paper describes the study methodology (**coal** quality impact models (CQIM)) which helped ComEd find profitable fuel solutions that adapt to changing...

Descriptors: **coal** ;

...Identifiers: **coal** -fired power generation...

...fuel **cost** balancing...

... **Black** and **Veatch** ; ...

... **coal** quality impact models

17/3,K/2 (Item 2 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

5891090 INSPEC Abstract Number: B9805-8230-020

Title: Energy production from straw and maize stalks in the Eastern Croatia

Author(s): Domac, J.; Tomsic, Z.

Journal: Energija vol.46, no.6 p.383-8

Publisher: Hrvatska Elektroprivreda,

Publication Date: 1997 Country of Publication: Croatia

CODEN: ENJAAC ISSN: 0013-7448

SICI: 0013-7448(1997)46:6L:383:EPFS;1-J
Material Identity Number: E130-98001
Language: Croatian
Subfile: B
Copyright 1998, IEE

Abstract: The energy potential of straw and maize stalks in Eastern Croatia is described. The **characteristics** of similar plants using straw and maize stalks, **coal** and natural gas are analysed whereby the investment and **produced electric energy costs** together with their influence on the environment are compared.

17/3,K/3 (Item 3 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

4959366 INSPEC Abstract Number: B9507-8230E-003
Title: Managing large coal -fired power projects in China
Author(s): Kalin, T.E.; Russell, H.A.; Garrett, S.M.; Yang, F.Q.
Author Affiliation: Black & Veatch, Kansas City, MO, USA
Journal: International Power Generation p.29-30, 33, 35
Publication Date: April 1995 Country of Publication: UK
CODEN: IPGED2 ISSN: 0141-1918
Language: English
Subfile: B
Copyright 1995, IEE

Title: Managing large coal -fired power projects in China
Abstract: China is the world's largest market for **coal** -fired power stations. Their selection, design and construction is discussed. The rapid growth of electric...

... requires external funding and investment in equipment and plant facilities. The amount of new large **coal** fueled generating units expected to be available for open bidding within China by international contractors is expected to be approximately 3000 MW per year. US and European **coal** fueled power generation technologies will contribute to the development of **cost** efficient power plants in China. Available technologies include conventional pulverized **coal** units using the US "Carolina" boiler arrangement, the European "tower" boiler arrangement, and 1300 MW...

... fluidized bed combustion (AFBC) is a relatively mature technology which will likely contribute to new **coal** fueled power generation. Several new **coal** fueled technologies, including pressurized fluidized bed combustion (PFBC) and gasification combined cycle (GCC), are under...

... in the late 1990s and after the year 2000. The development of these technologies form **Black** and **Veatch** 's view point are discussed.

...Descriptors: **coal** gasification

Identifiers: **coal** -fired power projects management...

... **coal** -fired power stations...

... **Black** and **Veatch**

17/3,K/4 (Item 4 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

4778424 INSPEC Abstract Number: B9411-8230E-059

Title: Circulating dry scrubber (CDS): cost effective FGD for clean coal plants

Author(s): Lavelly, L.L.; Mastalio, K.I.; Ohlmacher, T.M.

Author Affiliation: Black & Veatch, Kansas City, MO, USA

p.1670-80 vol.2

Publisher: Illinois Inst. Technol, Chicago, IL, USA

Publication Date: 1994 Country of Publication: USA 2 vol.
(xxi+899+xiii+946) pp.

Conference Title: Proceedings of 56th American Power Conference

Conference Sponsor: Illinois Inst. Technol

Conference Date: 25-27 April 1994 Conference Location: Chicago, IL, USA

Language: English

Subfile: B

Title: Circulating dry scrubber (CDS): cost effective FGD for clean coal plants

...Abstract: dry lime flue gas desulfurization (FGD) systems, including the circulating dry scrubber (CDS), have become **cost** effective for reliably achieving 95 to 98 percent SO/sub 2/ removal for short averaging ...

... also achieve high pollutant removal levels for other regulated and potentially regulated pollutants. Studies by **Black & Veatch** (B&V) in late 1993 for an eastern US utility and in early 1994 for...

... scrubbing technology has the potential to meet these ambitious objectives at low capital and operating **costs**. This paper describes the **Black & Veatch** project for BHPL, the air quality control system (AQCS) purchased for the Neil Simpson Unit...

... conceptual design, and the supporting related technology. It also summarizes the results of the above **Black & Veatch** studies.

...Identifiers: **cost** effective FGD...

...clean coal plants...

... **Black & Veatch** ;

17/3,K/5 (Item 5 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

4737222 INSPEC Abstract Number: B9410-8110-006

Title: Systems approach to emissions reduction from a power system in India

Author(s): Chattopadhyay, D.

Author Affiliation: Indira Gandhi Inst. of Dev. Res., Bombay, India

Journal: Energy Sources vol.16, no.3 p.425-38

Publication Date: July-Sept. 1994 Country of Publication: USA

CODEN: EGYSAO ISSN: 0090-8312

U.S. Copyright Clearance Center Code: 0090-8312/94/\$10.00+.00

Language: English

Subfile: B

...Abstract: four pollutants CO/sub 2/, SO/sub 2/, NO/sub x/, and fly ash. The **model** considers the detailed coal mines-to- **power** plant

linkages, the **coal** import for the coastal **coal** -based plants, details of all major interstate and inter-regional transmission lines, and the **generating** unit **characteristics** . It is found that installing abatement equipment is an attractive option for reducing fly ash...

17/3,K/6 (Item 6 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

4653132 INSPEC Abstract Number: B9406-8230-022

Title: Diagnostic techniques for power plant performance enhancement

Author(s): Haumesser, F.P.; Kriebel, D.; Sanyal, A.

Author Affiliation: Energy & Environ. Res. Corp., Orrville, OH, USA
p.133-43 vol.9

Publisher: PennWell Conferences & Exhibitions, Utrecht, Netherlands

Publication Date: 1993 Country of Publication: Netherlands 4 vol.
(569+424+693+251) pp.

Conference Title: Proceedings of POWER-GEN Europe '93

Conference Sponsor: Power Eng. Int

Conference Date: 25-27 May 1993 Conference Location: Paris, France

Language: English

Subfile: B

...Abstract: are being installed to meet the emission control legislations. In order for a utility to **generate power** at a minimum **cost** it is necessary to evaluate the total impact and associated costs. The individual **characteristics** of **coal** pose unique combustion problems ranging from decreased performance due to increased carbon loss to ash...

17/3,K/7 (Item 7 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

4553152 INSPEC Abstract Number: B9401-8230-042, C9401-7410B-192

Title: The coal quality expert: designing for maximum flexibility

Author(s): Stallard, G.S.; Pavlish, J.H.; Gellerstedt, B.D.

Author Affiliation: Black & Veatch, Kansas City, MO, USA

Conference Title: POWER-GEN'92. 5th International Conference and Exhibition for the Power Generating Industries p.47-60 vol.9

Publisher: Penwell Conferences and Exhibitions, Houston, TX, USA

Publication Date: 1992 Country of Publication: USA 10 vol. (2187) pp.

Conference Date: 17-19 Nov. 1992 Conference Location: Orlando, FL, USA

Language: English

Subfile: B C

Abstract: Understanding **coal quality** and its impacts on thermal **power** plant performance, emissions, and **production costs** is a difficult proposition. Because **coal quality** affects nearly every system of the **power** plant, quantifying such impacts requires a comprehensive and complex analysis of the power plant's...

17/3,K/8 (Item 8 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

4553150 INSPEC Abstract Number: B9401-8260-013

Title: Performance, cost and marketing of 200 MW carbonate fuel cell power

plants based on coal/natural gas/phased construction

Author(s): Barot, D.T.; Sander, M.T.; Sculati, J.R.; Tanner, A.L.; Steinfeld, G.; Farooque, M.

Author Affiliation: Fluor Daniel Inc., Irvine, CA, USA

Conference Title: POWER-GEN'92. 5th International Conference and Exhibition for the Power Generating Industries p.7-25 vol.9

Publisher: Penwell Conferences and Exhibitions, Houston, TX, USA

Publication Date: 1992 Country of Publication: USA 10 vol. (2187) pp.

Conference Date: 17-19 Nov. 1992 Conference Location: Orlando, FL, USA

Language: English

Subfile: B

...Abstract: to evaluate the technical, financial and marketing factors associated with the development and commercialization of **power** plants utilizing carbonate fuel cell technology. **Power** plant **characteristics** such as capital costs, heat rate, and environmental emissions associated with natural gas-fueled and **coal** gas-fueled carbonate fuel cell facilities are compared with those of competing **power** **generation** technologies. The **costs** of **electricity** for three different carbonate fuel cell **power** plant designs are summarized for two different plant start-up dates and two different fuel...

17/3,K/9 (Item 9 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

04320774 INSPEC Abstract Number: B9302-8230-051

Title: Thermal power-its importance and future for India

Author(s): Dasgupta, S.K.

Author Affiliation: Central Electricity Authority, New Delhi, India

Journal: Indian Journal of Power and River Valley Development vol.42, no.2 p.33-40

Publication Date: Feb. 1992 Country of Publication: India

CODEN: IJPRA7 ISSN: 0019-5537

Language: English

Subfile: B

...Abstract: for development of low cost options. The author discusses the future issues of Indian thermal **power** **generation** including **coal** **quality** , two-shift operation, oil conservation, performance improvement and higher unit sizes.

17/3,K/10 (Item 10 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

03746876 INSPEC Abstract Number: B90073747, C90072642

Title: Impact of coal quality on the cost of electrical power generation : a technoeconomic model

Author(s): Ugursal, V.L.; Al Taweel, A.M.; Mackay, G.D.M.

Author Affiliation: Tech. Univ. of Nova Scotia, Halifax, NS, Canada

Journal: International Journal of Energy Research vol.14, no.6 p. 683-99

Publication Date: Aug. 1990 Country of Publication: UK

CODEN: IJERDN ISSN: 0363-907X

U.S. Copyright Clearance Center Code: 0363-907X/90/060683-17\$08.50

Language: English

Subfile: B C

Title: Impact of coal quality on the cost of electrical power generation : a technoeconomic model

Abstract: The authors describe a computer based technoeconomic model that can accurately predict the impact of coal quality and other key variables on the busbar cost of electricity generated by new power plants. The model, IMPACT, focuses on the four major cost sectors of the coal -to- electricity chain: transportation, power plant, post combustion particulate and SO/sub 2/ emission controls, and waste disposal. Different strategies...

17/3,K/11 (Item 11 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

03741447 INSPEC Abstract Number: B90073643

Title: Development and application of the coal quality impact model: CQIM

Issued by: Electr. Power Res. Inst., Palo Alto, CA, USA

Publication Date: 15 May 1990 Country of Publication: USA 184 pp.

Report Number: EPRI GS-6393

Language: English

Subfile: B

Abstract: The cost of generating electricity in a power plant depends not only on the delivered cost of coal but on fuel-related operating costs and various plant component maintenance. The new Coal Quality Impact Model (CQIM) provides electric utilities with a tool for evaluating the total fuel-related generation costs of different coal supply options. This report describes the model and demonstrates its use in specific case studies.

17/3,K/12 (Item 12 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

03484011 INSPEC Abstract Number: B89074364

Title: Modernization of the Heartland Cement Plant

Author(s): Amory, S.E.; Harokopis, M.C.

Author Affiliation: Fuller Co., Bethlehem, PA, USA

Conference Title: Record of Conference Papers. IEEE Cement Industry Technical Conference XXXI (Cat. No.89CH2667-4) p.375-89

Publisher: IEEE, New York, NY, USA

Publication Date: 1989 Country of Publication: USA 537 pp.

U.S. Copyright Clearance Center Code: CH2667-4/89/0000-0375\$01.00

Conference Sponsor: IEEE

Conference Date: 15-17 May 1989 Conference Location: Denver, CO, USA

Language: English

Subfile: B

...Abstract: inefficient equipment, was completely replaced by a single vertical roller mill to reduce maintenance and power consumption, while improving product quality. Benefits of the coal mill modernization include better coal grinding, drying, and firing control, with a 10% decrease in fuel consumption. The new system...

17/3,K/13 (Item 13 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

03408979 INSPEC Abstract Number: B89052429

Title: Relative values of coals for electric power generation

Author(s): Yan, T.Y.; White, J.R.

Author Affiliation: Mobil Res. & Dev. Corp., Princeton, NJ, USA

Journal: Energy vol.14, no.4 p.199-206

Publication Date: April 1989 Country of Publication: UK

CODEN: ENEYDS ISSN: 0360-5442

U.S. Copyright Clearance Center Code: 0360-5442/89/\$3.00+0.00

Language: English

Subfile: B

...Abstract: The model also provides guidance to utility users in arriving at competitive estimates for available **coals**. The total **cost** of **power generation** includes the **price** of **coal** at the mine-mouth and transportation **cost** from mine to users, net boiler heat **production cost**, plant-investment **costs**, maintenance and operating **costs**, and insurance and taxes, with economic parameters **characteristic** of utility financing. Taken into account is the impact of the physical and chemical properties...

17/3,K/14 (Item 14 from file: 2)

DIALOG(R)File 2:INSPEC

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03256927 INSPEC Abstract Number: B88075450

Title: Proceedings: reducing electricity generation costs by improving coal quality

Issued by: Electr. Power Res. Inst., Palo Alto, CA, USA

Publication Date: 31 May 1988 Country of Publication: USA 484 pp.

Report Number: EPRI-CS-5713

Language: English

Subfile: B

Title: Proceedings: reducing electricity generation costs by improving coal quality

17/3,K/15 (Item 15 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

03196647 INSPEC Abstract Number: B88049357

Title: Coal quality information book

Issued by: Electr. Power Res. Inst., Palo Alto, CA, USA

Publication Date: 31 Dec. 1987 Country of Publication: USA 536 pp.

Report Number: EPRI-CS-5421

Language: English

Subfile: B

Abstract: Fundamental information on **coal quality** and cleanability-vital in specifying **coals** that yield the lowest **electricity generation costs** and SO/sub 2/ emissions-is now available for the first time. Utilities involved in **coal** cleaning and switching will find a valuable guide in this comprehensive study of important North...

17/3,K/16 (Item 16 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

03057918 INSPEC Abstract Number: B88010960

Title: Upgrading Upper Kittanning Seam coal quality to improve power plant performance. Coal cleaning test facility campaign report no.6

Issued by: Electr. Power Res. Inst., Palo Alto, CA, USA

Publication Date: 15 Aug. 1987 Country of Publication: USA 208 pp.

Report Number: EPRI-CS-4866

Language: English

Subfile: B

...Abstract: EPRI Coal Cleaning Test Facility (CCTF) is investigating various methods of cleaning nationally important steam **coals** to improve their combustion **characteristics** and thus reduce the **costs** of **generating electricity** . Information on the **quality** of the cleaned **coals** helps utilities select **coals** that will improve **power** plant performance and/or reduce SO/sub 2/ emissions. Physical cleaning of Upper Kittanning Seam...

17/3,K/17 (Item 17 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

02994359 INSPEC Abstract Number: B87071550

Title: Quality of coal and its effect on cost of generation
Author(s): Thanaseelan, S.
Author Affiliation: Tuticorin Thermal Power Station, India
Journal: Journal of the Institution of Engineers (India) Mechanical Engineering Division vol.67, pt.ME1-2 p.22-3
Publication Date: July-Sept. 1986 Country of Publication: India
CODEN: JEMDAS ISSN: 0020-3408
Language: English
Subfile: B

Abstract: Deals with the **quality** of **coal** and its effect on the **cost** of **power generation** from thermal **power** plants. It takes into account calorific value, ash and volatile matter contents of coal and...

17/3,K/18 (Item 18 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

02969717 INSPEC Abstract Number: B87064053

Title: The power alliance-national and international
Author(s): Kiwit, W.
Author Affiliation: Vorstandsmitglied der Vereinigte Elektrizitätswerke Westfalen AG, Dortmund, West Germany
Journal: Elektrizitätswirtschaft vol.86, no.11 p.467-75
Publication Date: 25 May 1987 Country of Publication: West Germany
CODEN: EKZWAZ ISSN: 0013-5496
Language: German
Subfile: B

...Abstract: their networks on a far-reaching joint basis, consequently providing mutual breakdown assistance and standby **power** . Therefore networks alliances increase the **quality** of **electricity** supply. The use of location specific resources such as water and brown **coal** and the connection of large block outputs with their lower **generation costs** , make an efficient combined network necessary to contribute to economical **power** generation.

17/3,K/19 (Item 19 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

02816919 INSPEC Abstract Number: B87015410

Title: On the loss to the national economy caused by the lower quality of coal for thermal power stations

Author(s): Roddatis, K.F.; Shakhsov-arov, K.V.
Journal: Elektricheskie Stantsii no.1 p.6-10
Publication Date: Jan. 1985 Country of Publication: USSR
CODEN: EKSTAP ISSN: 0201-4564
Translated in: Soviet Power Engineering T01
Country of Publication: USA
CODEN: SVPEAQ ISSN: 0049-1756
Language: Russian
Subfile: B

...Abstract: the heated surfaces of combustion chambers, and higher maintenance costs. In consequence of this worsening **quality** of **coal**, the introduction of higher rated **powers** at **generating** stations using solid fuel, particularly pulverized **coal**, has not been accompanied by a proportionate increase in the production of electrical energy. It...

17/3,K/20 (Item 20 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

02657206 INSPEC Abstract Number: B86032895

Title: A practical Monte Carlo approach to assessment of generation plant reliability/availability

Author(s): McClernon, M.F.; Morris, D.I.
Author Affiliation: Black & Veatch, Kansas City, MO, USA
Conference Title: Proceedings of the American Power Conference p. 415-21
Publisher: Illinois Inst. Technol, Chicago, IL, USA
Publication Date: 1984 Country of Publication: USA xli+1075 pp.
Conference Sponsor: Illinois Inst. Technol
Conference Date: 24-26 April 1984 Conference Location: Chicago, IL, USA
Language: English
Subfile: B

Abstract: The authors present a modified approach to Monte Carlo assessment developed by **Black** and **Veatch**. The approach greatly reduces the effort and **cost** involved, but retains the method's flexibility. Full, integrated simulation of a complete generating unit...

... components and 20 subsystems) can be achieved in few man-days and with lower total **cost** than any comparable method. The analysis method and results for the **Black** and **Veatch** 675 MW **coal** fueled reference plant are presented.

...Identifiers: 675 MW **coal** fueled reference plant

17/3,K/21 (Item 21 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

02657178 INSPEC Abstract Number: B86033094

Title: Design coal units for best heat rate to reduce cost per kilowatt

Author(s): Adam, P.J.; Davidson, P.G.
Author Affiliation: Black & Veatch, Kansas City, MO, USA
Conference Title: Proceedings of the American Power Conference p.83-9
Publisher: Illinois Inst. Technol, Chicago, IL, USA
Publication Date: 1984 Country of Publication: USA xli+1075 pp.

Conference Sponsor: Illinois Inst. Technol
Conference Date: 24-26 April 1984 Conference Location: Chicago, IL,
USA

Language: English
Subfile: B

Title: Design coal units for best heat rate to reduce cost per kilowatt

Abstract: To examine the validity of designing coal units for high efficiency at peak loads, the authors compare several peaking concepts to the **Black & Veatch** 675 MW Reference Plant, which is designed for high efficiency at peak load. These peaking...

...Identifiers: coal units

17/3,K/22 (Item 22 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

02348255 INSPEC Abstract Number: A84114961

Title: Economics and potential application of electrolytic hydrogen in the next decades

Author(s): Donitz, W.

Author Affiliation: Dornier System GmbH, Friedrichshafen, West Germany

Journal: International Journal of Hydrogen Energy vol.9, no.10 p.
817-21

Publication Date: 1984 Country of Publication: UK

CODEN: IJHEDX ISSN: 0360-3199

U.S. Copyright Clearance Center Code: 0360-3199/84\$3.00+0.00

Language: English

Subfile: A

...Abstract: the necessity of producing clean and environmentally accepted fuels from fossil hydrocarbon resources of minor **quality** and from **coal**. The use of electrolytic hydrogen is limited by the economics of its **production** which is dominated by the **cost** of the **electrical** energy necessary for water splitting. The potential for cost reductions by the application of new...

17/3,K/23 (Item 23 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

02177513 INSPEC Abstract Number: B84007720, C84006655

Title: Evaluation of quality parameters for assessment of steaming coal utilisation

Author(s): Baker, T.C.St.; Dyne, G.D.

Author Affiliation: ERM Consultants Pty. Ltd., Brisbane, Qld., Australia

Conference Title: Computers in Mining - 1983. The Australasian Institute of Mining and Metallurgy Southern Queensland Branch Symposium p.117-25

Publisher: Australasian Inst. Min. & Metall, Parkville, Vic., Australia

Publication Date: 1983 Country of Publication: Australia .vii+287 pp.

ISBN: 0 909520 76 3

Conference Date: May 1983 Conference Location: Australia

Language: English

Subfile: B C

...Abstract: a wide range of black coals and lignites, and in the

specification and procurement of **coal** supplies for **power** station use, techniques for the optimisation of **coal** resource development and **power generation** utilisation have been developed to ensure compatibility between **characteristics** of the selected **coals** and **power** station design. These techniques include computer data bases for resource data handling and computer simulation...

17/3,K/24 (Item 24 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

01626870 INSPEC Abstract Number: A81008738, B81009143

Title: An update of OTEC baseline design costs

Author(s): Curto, P.A.

Author Affiliation: Metrek Div., Mitre Corp., McLean, VA, USA

Journal: Energy vol.5, no.6 p.529-38

Publication Date: June 1980 Country of Publication: UK

CODEN: ENEYDS ISSN: 0360-5442

Language: English

Subfile: A B

...Abstract: economic performance of an OTEC system is site specific, a generalization is made regarding site **characteristics**. The primary competitors for OTEC are baseload and intermediate **electric power** plants, **coal - produced** synthetic **products**, and **products** made with oil and gas. Certain unusual circumstances lead to specific opportunities for OTEC for...

17/3,K/25 (Item 25 from file: 2)

DIALOG(R)File 2:INSPEC

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01598543 INSPEC Abstract Number: B80056098

Title: Clean air becomes cheaper. Cost aspects of exhaust gas purification on coal-fired steam generators

Author(s): Alfredsson, P.-O.

Author Affiliation: Svenska Flaktfabriken AB, Stockholm, Sweden

Journal: Energie vol.32, no.6-7 p.237-41

Publication Date: June-July 1980 Country of Publication: West Germany

CODEN: ENERA4 ISSN: 0013-7359

Language: German

Subfile: B

Abstract: To an increasing extent **electricity** generating undertakings have to use fuel in their **coal** fired stations with a wider range of **characteristics** and inferior **properties**. Additionally stricter emission and desulphurisation requirements necessitate greater attention being devoted to the technical and...

17/3,K/26 (Item 26 from file: 2)

DIALOG(R)File 2:INSPEC

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01598326 INSPEC Abstract Number: B80055848

Title: Intertemporal pricing and investment for electric power supply

Author(s): Rowse, J.

Author Affiliation: Queen's Univ., Kingston, Ont., Canada

Journal: Bell Journal of Economics vol.11, no.1 p.143-65
Publication Date: Spring 1980 Country of Publication: USA
CODEN: BJECD3 ISSN: 0361-915X
Language: English
Subfile: B

...Abstract: and capacity expansion increments, for use as a tool in quantifying intertemporal tradeoffs for an **electric** utility among **prices** and supplies and improved environmental **quality** or diminished **production** hazard. For illustrative purposes the **model** is applied to a Canadian **electric** utility to trace the **price** and supply consequences of foregoing an attractive hydro alternative with undesirable externalities and hypothetical legislation...

17/3,K/27 (Item 27 from file: 2)
DIALOG(R)File 2:INSPEC
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00770320 INSPEC Abstract Number: A75036408, B75022380

Title: Cost/benefit considerations of nuclear power

Author(s): Rudman, R.L.

Author Affiliation: Electric Power Res. Inst., Palo Alto, CA, USA

Journal: Nuclear Technology vol.24, no.3 p.309-13

Publication Date: Dec. 1974 Country of Publication: USA

CODEN: NUTYBB ISSN: 0029-5450

Language: English

Subfile: A B

...Abstract: analysis has been used in an attempt to place the societal costs associated with nuclear **power** into perspective by comparing them with the **costs** associated with **coal** -fired plants. **Generation** of **electricity** from **coal** is assumed to represent an acceptable risk in our society. The results of a **qualitative** evaluation indicate that nuclear **power** compares favourably with **coal** for the following **costs** : resource depletion, environmental insult, **cost** of **power generation** , voluntary occupational health risks, and involuntary public health risks associated with routine plant operation. Plant...

17/3,K/28 (Item 1 from file: 6)
DIALOG(R)File 6:NTIS
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2243385 NTIS Accession Number: MIC-102-05463/XAB

Yukon energy resources: Coal

Collins, R.

Yukon Territory. Dept. of Economic Development, Whitehorse.

Corp. Source Codes: 999999999; 9999999;

Sponsor: Yukon Territory. Cabinet Commission on Energy (Canada).

c1997 37p

Languages: English

Journal Announcement: USGRDR0225

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NTIS Prices: PC E07/MF E01

This publication provides an overview of the extent of **coal** resources

in the Yukon and the factors affecting their development. Topics covered include Yukon **coal properties** & reserves, markets, **electricity generation** options, mining **costs**, regulatory issues, **coal production** & use in neighbouring areas, the history of **coal** development in the territory, and environmental impacts of mining & burning **coal**.

17/3,K/29 (Item 2 from file: 6)

DIALOG(R)File 6:NTIS

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2224455 NTIS Accession Number: PB2002-101863/XAB

Coal Industry Annual, 1999

Freeme, F.

Energy Information Administration, Washington, DC. Office of Coal, Nuclear, Electric and Alternate Fuels.

Corp. Source Codes: 052896001

Report No.: DOE/EIA-0584(99)

1999 CD-ROM

Languages: English

Journal Announcement: USGRDR0208

This document is color dependent and/or in landscape layout. It is currently only available on CD-ROM.

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)605-6900; and email at orders@ntis.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: AV A15

This report provides comprehensive information about U.S. **coal production**, number of mines, **prices**, **productivity**, employment, productive capacity, and recoverable reserves. This report also presents data on **coal** consumption, **coal** distribution, **coal** stocks, **coal** prices, and **coal** quality. Appendix A contains a compilation of **coal** statistics for the major **coal - producing** States. This report includes national total **coal** consumption for nonutility power **producers** that are not in the manufacturing, agriculture, mining, construction, or commercial sectors.

17/3,K/30 (Item 3 from file: 6)

DIALOG(R)File 6:NTIS

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2213658 NTIS Accession Number: DE2001-2717/XAB

Development of a Coal Quality Expert

Federal Energy Technology Center, Morgantown, WV.

Corp. Source Codes: 116662000

Sponsor: Department of Energy, Washington, DC.

Report No.: DE-FC22-90PC89663

20 Jun 1998 141p

Languages: English

Journal Announcement: USGRDR0125

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NTIS Prices: PC A08/MF A02

Development of a Coal Quality Expert

... completed a broad, comprehensive program to demonstrate the economic and environmental benefits of using higher **quality** U.S. **coals** for **electrical power generation** and developed state-of-the-art user-friendly software-- **Coal Quality Expert (CQE)**--to reliably predict/estimate these benefits in a consistent manner. The program was...
... past under U.S. DOE and EPRI sponsorship and it expanded the available database of **coal** quality and power plant performance information. This software will permit utilities to purchase the lowest **cost** clean **coals** tailored to their specific requirements. Based on common interest and mutual benefit, the subject program was cosponsored by the U.S. DOE, EPRI, and eight U.S. **coal**-burning utilities. In addition to cosponsoring this program, EPN contributed its background research, data, and...

... project was performed under separate contracts to CQ Inc. by Electric Power Technologies (El'T), **Black** and **Veatch** (B and V), ABB Combustion Engineering, Babcock and Wilcox (B and W), and Decision Focus, Inc. Although a significant quantity of the **coals** tied in the United States are now cleaned to some degree before firing, for many of these **coals** the residual sulfur content requires users to install expensive sulfur removal systems and the residual...

... and ash at utility plant sites can also be problematic and expensive. Improved and advanced **coal** cleaning processes can reduce the sulfur content of many **coals** to levels conforming to environmental standards without requiring post-combustion desulfurization systems. Also, some **coals** may be beneficiated or blended to a quality level where significantly less **costly** desulfurization systems are needed. **Coal** cleaning processes may also be used to remove the precursors of other troublesome emissions that can be identified now or in the future. An added benefit of **coal** cleaning and blending is the reduction in concentrations of mineral impurities in the fuel leading...

... safely disposed of at the mine than at the utility plant after combustion. EPRI's **Coal Quality Impact Model (CQIM)** has shown that improved fuel quality can result in savings in unit capital and operating **costs**. This project produced new and improved software to select **coal** types and specifications resulting in the best quality and lowest **cost** fuel to meet specific environmental requirements.

Descriptors: Boilers; *Cleaning; * **Coal** ; *Electric power; Combustion; Operating **cost** ; Power generation; Power plants; Slags; Sulfur content

17/3,K/31 (Item 4 from file: 6)

DIALOG(R)File 6:NTIS

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2178061 NTIS Accession Number: PB2000-107593/XAB

South Africa Fluidized Bed Combustion Feasibility Study for Unit 7 at Komati Power Station. Final Report

(Export trade information)

Black and Veatch International, Kansas City, MO.

Corp. Source Codes: 107857000

May 2000 348p

Languages: English

Journal Announcement: USGRDR0024

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located at 5285 Port Royal Road, Springfield, VA, 22161, USA.
NTIS Prices: PC A16

The feasibility study, conducted by **Black** and **Veatch** International, was funded by the U.S. Trade and Development Agency. This report examines a ...

... unit at the Komati Power Station with Fluidized Bed Combustion (FBC) technology, utilizing low-grade **coal**. This study contains an introduction, a fuel and sorbent evaluation, a plant audit, technical evaluations, conceptual designs, **cost** estimates, an implementation plan, and a comparison with the Greenfield plant. The project has the...

Descriptors: Fossil-fuel power plants; *South Africa; *Fluidized-bed combustors; *Feasibility studies; Combustion; **Coal**; Project planning; Boilers; Diagrams; Implementation; International trade; Exports; Sorbent injection processes; **Cost** estimates; Environmental impacts

17/3,K/32 (Item 5 from file: 6)
DIALOG(R)File 6:NTIS
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2166770 NTIS Accession Number: PB2000-106290/XAB

Coal Industry Annual 1998

Energy Information Administration, Washington, DC. Office of Coal, Nuclear, Electric and Alternate Fuels.

Corp. Source Codes: 052896001

Report No.: DOE/EIA-0584(98)

1998 312p

Languages: English

Journal Announcement: USGRDR0018

See also DE99001125 (report for 1997).

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NTIS Prices: PC A15/MF A03

This report provides comprehensive information about U.S. **coal production**, number of mines, **prices**, **productivity**, employment, productive capacity, and recoverable reserves. This report also presents data on **coal** consumption, **coal** distribution, **coal** stocks, **coal** prices, and **coal** quality. Appendix A contains a compilation of **coal** statistics for the major **coal - producing** States. This report includes national total **coal** consumption for nonutility power **producers** that are not in the manufacturing, agriculture, mining, construction, or commercial sectors.

17/3,K/33 (Item 6 from file: 6)
DIALOG(R)File 6:NTIS
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2114619 NTIS Accession Number: DE99001125/XAB

Coal industry annual 1997

USDOE Energy Information Administration, Washington, DC (United States).

Corp. Source Codes: 888888888

Report No.: DOE/EIA-0584(97)

31 Dec 1998 275p

Languages: English

Journal Announcement: GRAI9911; ERA9910

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NTIS Prices: PC A13/MF A03

...US coal production, number of mines, prices, productivity, employment, productive capacity, and recoverable reserves. US **Coal** production for 1997 and previous years is based on the annual survey EIA-7A, **Coal Production** Report. This report presents data on **coal** consumption, **coal** distribution, **coal** stocks, **coal** prices, and **coal** quality for Congress, Federal and State agencies, the **coal** industry, and the general public. Appendix A contains a compilation of **coal** statistics for the major **coal** - **producing** States. This report includes a national total **coal** consumption for nonutility power **producers** that are not in the manufacturing, agriculture, mining, construction, or commercial sectors. 14 figs., 145...

17/3,K/34 (Item 7 from file: 6)

DIALOG(R)File 6:NTIS

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2106554 NTIS Accession Number: DE97002273/XAB

Remote-site power generation opportunities for Alaska

Jones, M. L.

USDOE Assistant Secretary for Fossil Energy, Washington, DC (United States).

Corp. Source Codes: 8888888888

Report No.: DOE/MC/30098-5638

31 Mar 97 136p

Languages: English

Journal Announcement: GRAI9907; ERA9903

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NTIS Prices: PC A08/MF A02

... activity was to reduce the use of fuel in Alaskan villages by developing small, low- **cost power generation** applications. Because of the abundance of high- **quality coal** throughout Alaska, emphasis was placed on clean coal applications, but other energy sources, including geothermal...

17/3,K/35 (Item 8 from file: 6)

DIALOG(R)File 6:NTIS

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2031328 NTIS Accession Number: PB98-106818/XAB

Mchuchuma/Katewaka Coal Fired Power Plant Feasibility Study. Final Report

(Export trade information)

Black and Veatch International, Kansas City, MO.

Corp. Source Codes: 107857000

22 Nov 96 452p

Languages: English

Journal Announcement: GRAI9801

This document contains maps and drawings that are available for viewing

at the TDA library. This document was provided to NTIS by the U.S. Trade and Development Agency, Rosslyn, VA.

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NTIS Prices: PC\$67.00

Mchuchuma/Katewaka Coal Fired Power Plant Feasibility Study. Final Report

This study, conducted by **Black** and **Veatch** International, was funded by the U.S. Trade and Development Agency. The report assesses the feasibility for the development of a new **coal** fueled power plant in Tanzania at the Mchuchuma/Katewaka **coal** concession area. Volume 3, the Main Report, is divided into the following sections: (1.0) Introduction; (2.0) Power System Development Studies; (3.0) Conceptual Design Summary of the Mchuchuma **Coal** Fired Power Plant; (4.0) Fuel Supply Evaluation; (5.0) Transmission System Evaluation; (6.0...

...Evaluation and Benefit Analysis; (10.0) Sources of Finance; Appendix (A) Preliminary Design of Mchuchuma **Coal** Plant.

Descriptors: **Coal** fired power plants; *Tanzania; *Feasibility studies; Economic development; **Coal** mines; Project planning; International trade; Environmental impacts; Site surveys; **Cost** estimates

Identifiers: Export trade information; Foreign marketing; Mchuchuma Katewaka **Coal** Fields(Tanzania); NTISUSTDP

17/3,K/36 (Item 9 from file: 6)

DIALOG(R)File 6:NTIS

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2024655 NTIS Accession Number: OECD-0289/XAB

Coal Information 1992 (1993 Edition)

Organisation for Economic Co-Operation and Development, Paris (France).

Corp. Source Codes: 113787000

Report No.: ISBN 9264139419

c15 Jul 93 500p

Languages: English

Journal Announcement: GRAI9723

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NTIS Prices: PC\$125.00

...analysis and country-specific statistics for OECD Member countries and selected non-OECD countries on **coal prices**, demand, trade, supply, **productive** capacity, and environmental policies on air **quality** and climate change. Essential facts on **coal** importing and exporting ports and coal-fired **power** stations in coal-importing regions are included.

17/3,K/37 (Item 10 from file: 6)

DIALOG(R)File 6:NTIS

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1998961 NTIS Accession Number: DE97001107

Coal Industry Annual 1995

Department of Energy, Washington, DC. Office of Coal, Nuclear, Electric

and Alternate Fuels.

Corp. Source Codes: 052661271; 9514738

Report No.: DOE/EIA-0584(95)

Oct 96 267p

Languages: English

Journal Announcement: GRAI9712; ERA9721

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NTIS Prices: PC A13/MF A03

This report presents data on coal consumption, coal distribution, coal stocks, coal prices, coal **quality**, and emissions for Congress, Federal and State agencies, the **coal** industry, and the general public. Appendix A contains a compilation of **coal** statistics for the major **coal - producing** States. This report does not include **coal** consumption data for nonutility **power producers** that are not in the manufacturing, agriculture, mining, construction, or commercial sectors. Consumption for nonutility...

17/3,K/38 (Item 11 from file: 6)

DIALOG(R)File 6:NTIS

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1941328 NTIS Accession Number: PB96-153648

Hwange Power Plant Stage 3 Expansion: Feasibility Study Update. Executive Summary

(Export trade information)

Black and Veatch International, Kansas City, MO.

Corp. Source Codes: 107857000

29 Feb 96 39p

Languages: English

Journal Announcement: GRAI9610

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NTIS Prices: PC A03

The study, conducted by **Black** and **Veatch** International, was funded by the U.S. Trade and Development Agency. The report presents the study objectives and approach for the expansion of the Hwange **Coal** Fired Thermal Power Station- stage III. The objectives of the study include the identification of the least- **cost** -option, to determine the suitable conceptual design, and to review project implementation and financing. The ...

Descriptors: Zimbabwe; *Electric power plants; *Feasibility; **Coal** -fired MHD generators; Master planning; **Cost** analysis

17/3,K/39 (Item 12 from file: 6)

DIALOG(R)File 6:NTIS

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1938701 NTIS Accession Number: PB96-145636

Hwange Thermal Power Plant Expansion: Appendices, Volume 2

(Export trade information)
Black and Veatch International, Kansas City, MO.
Corp. Source Codes: 107857000
30 Jan 96 450p
Languages: English
Journal Announcement: GRAI9609

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NTIS Prices: PC A19

This study, conducted by **Black** and **Veatch** International, was funded by the U.S. Trade and Development Agency. The report shows the results of a feasibility study done to investigate the expansion of Hwange **Coal** Fired Thermal Power Station Stage III as an option to meet the future electric power...

... the objectives and approach, study basis and summary of conclusions and recommendations for power, least- **cost** capacity, as well as project description and implementation. This is Volume 2 of a two...

17/3,K/40 (Item 13 from file: 6)

DIALOG(R)File 6:NTIS

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1938700 NTIS Accession Number: PB96-145628

Hwange Thermal Power Plant Expansion: Project Document, Volume 1

(Export trade information)

Black and Veatch International, Kansas City, MO.

Corp. Source Codes: 107857000

30 Jan 96 313p

Languages: English

Journal Announcement: GRAI9609

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NTIS Prices: PC A14

This study, conducted by **Black** and **Veatch** International, was funded by the U.S. Trade and Development Agency. The report shows the results of a feasibility study done to investigate the expansion of Hwange **Coal** Fired Thermal Power Station Stage III as an option to meet the future electric power...

... the objectives and approach, study basis and summary of conclusions and recommendations for power, least- **cost** capacity, as well as project description and implementation. This is Volume 1 of a two...

... sections: (1) Executive Summary; (2) System Development Plan; (3) Preliminary Design; (4) Environmental Assessment; (5) **Cost** Estimate and Schedule Update; (6) Financial Analysis and Plan; (7) Reference Documents.

Descriptors: Zimbabwe; *Thermal power plants; *Master planning; **Cost** estimates; Project planning; Design criteria; Environmental impacts;

Financing; Feasibility

17/3,K/41 (Item 14 from file: 6)
DIALOG(R)File 6:NTIS
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1920512 NTIS Accession Number: DE95016496

Pressurized circulating fluidized-bed combustion for power generation

Weimer, R. F.

Air Products and Chemicals, Inc., Allentown, PA.

Corp. Source Codes: 000967000; 0131000

Sponsor: Department of Energy, Washington, DC.

Report No.: DOE/MC/31261-95/C0497; CONF-9507119-4

1995 9p

Languages: English Document Type: Conference proceeding

Journal Announcement: GRAI9603; ERA9603

Summer national meeting of the American Institute of Chemical Engineers, Boston, MA (United States), 30 Jul - 2 Aug 1995. Sponsored by Department of Energy, Washington, DC.

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NTIS Prices: PC A02/MF A01

... is the culmination of years of effort in the development of a new generation of **power** plants which can operate on lower- **quality** fuels with substantially improved efficiencies, meet environmental requirements, and provide a lower **cost** of **electricity**. Air **Products** was selected in the DOE Clean **Coal** Technology Round V program to build, own, and operate the first commercial power plant using...

17/3,K/42 (Item 15 from file: 6)
DIALOG(R)File 6:NTIS
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1918166 NTIS Accession Number: PB96-122387

Southern Thailand Coal Fired Project: Conceptual Design. Volume 4

(Export trade information)

Electricity Generating Authority of Thailand, Nonthaburi.

Corp. Source Codes: 077645000;

Sponsor: Black and Veatch International, Kansas City, MO.

1 Sep 95 389p

Languages: English

Journal Announcement: GRAI9602

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NTIS Prices: PC A17

Southern Thailand Coal Fired Project: Conceptual Design. Volume 4

This study, conducted by **Black & Veatch** International, was funded by the U.S. Trade and Development Agency. The report addresses various technical, environmental, and economic aspects of developing four 1,000 MW

units of **coal** fired electric generating facilities at a site near Prachuap Khiri Khan. The study includes a **cost** estimate for the units and the fuel delivery port as well as the major conceptual...

Descriptors: Thailand; * **Coal** fired power plants; Design criteria; Systems engineering; Fire protection

17/3,K/43 (Item 16 from file: 6)

DIALOG(R)File 6:NTIS

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1918165 NTIS Accession Number: PB96-122379

Southern Thailand Coal Fired Project: Conceptual Design. Volume 3

(Export trade information)

Electricity Generating Authority of Thailand, Nonthaburi.

Corp. Source Codes: 077645000;

Sponsor: Black and Veatch International, Kansas City, MO.

1 Sep 95 532p

Languages: English

Journal Announcement: GRAI9602

This document was provided to NTIS by the U.S. Trade and Development Agency, Rosslyn, VA. See also PB96-122387. Prepared in cooperation with Black and Veatch International, Kansas City, MO.

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NTIS Prices: PC A23

Southern Thailand Coal Fired Project: Conceptual Design. Volume 3

This study, conducted by **Black & Veatch** International, was funded by the U.S. Trade and Development Agency. The report addresses various technical, environmental, and economic aspects of developing four 1,000 MW units of **coal** fired electric generating facilities at a site near Prachuap Khiri Khan. The study includes a **cost** estimate for the units and the fuel delivery port as well as the major conceptual...

Descriptors: Thailand; * **Coal** fired power plants; Design criteria; Environmental engineering; Scrubbing; Fly ash

17/3,K/44 (Item 17 from file: 6)

DIALOG(R)File 6:NTIS

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1918164 NTIS Accession Number: PB96-122361

Southern Thailand Coal Fired Project: Conceptual Design. Volume 2

(Export trade information)

Electricity Generating Authority of Thailand, Nonthaburi.

Corp. Source Codes: 077645000;

Sponsor: Black and Veatch International, Kansas City, MO.

1 Sep 95 476p

Languages: English

Journal Announcement: GRAI9602

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NTIS Prices: PC A21

Southern Thailand Coal Fired Project: Conceptual Design. Volume 2

This study, conducted by **Black & Veatch** International, was funded by the U.S. Trade and Development Agency. The report addresses various technical, environmental, and economic aspects of developing four 1,000 MW units of **coal** fired electric generating facilities at a site near Prachuap Khiri Khan. The study includes a **cost** estimate for the units and the fuel delivery port as well as the major conceptual...

Descriptors: **Coal** fired power plants; *Thailand; Design criteria; Systems analysis

17/3,K/45 (Item 18 from file: 6)

DIALOG(R)File 6:NTIS

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1918162 NTIS Accession Number: PB96-122346

Southern Thailand Coal Fired Project: Feasibility Study

(Export trade information)

Electricity Generating Authority of Thailand, Nonthaburi.

Corp. Source Codes: 077645000;

Sponsor: Black and Veatch International, Kansas City, MO.

1 Sep 95 152p

Languages: English

Journal Announcement: GRAI9602

This document was provided to NTIS by the U.S. Trade and Development Agency, Rosslyn, VA. See also PB96-122353. Prepared in cooperation with Black and Veatch International, Kansas City, MO.

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NTIS Prices: PC A08

Southern Thailand Coal Fired Project: Feasibility Study

This study, conducted by **Black & Veatch** International, was funded by the U.S. Trade and Development Agency. The report addresses various technical, environmental, and economic aspects of developing four 1,000 MW units of **coal** fired electric generating facilities at a site near Prachuap Khiri Khan. The study includes a **cost** estimate for the units and the fuel delivery port as well as the major conceptual...

... Support the Environmental Impact Assessment; (8) Plant Conceptual Design; (9) Transmission Interconnection; (10) Project Capital **Cost** Estimate; (11) Project Schedule; (12) Project Implementation Plan; (13) Project Risk Analysis.

Descriptors: **Coal** fired power plants; *Thailand; *Feasibility; Site selection; Water resources; Environmental impacts; **Cost** estimates; Risk

17/3,K/46 (Item 19 from file: 6)

DIALOG(R)File 6:NTIS

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1869865 NTIS Accession Number: DE95005468

Development of a coal quality expert. Technical progress report No. 16

CQ, Inc., Homer City, PA.

Corp. Source Codes: 101161000; 9528664

Sponsor: Department of Energy, Washington, DC.

Report No.: DOE/PC/89663-T14
2 Aug 94 4p
Languages: English
Journal Announcement: GRAI9512; ERA9524
Sponsored by Department of Energy, Washington, DC.
Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.
NTIS Prices: PC A01/MF A01

... utility industry with a PC software program to confidently and inexpensively evaluate the potential for **coal** cleaning, blending, and switching options to reduce emissions while **producing** lowest **cost electricity**. Specifically, this project will: (1) Enhance the existing **Coal Quality** Information System (CQIS) database and **Coal Quality** Impact **Model** (CQIM) to allow confident assessment of the effects of cleaning on specific boiler cost and...

17/3,K/47 (Item 20 from file: 6)
DIALOG(R)File 6:NTIS
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1865134 NTIS Accession Number: DE95004326
Coal industry annual 1993
Department of Energy, Washington, DC. Office of Coal, Nuclear, Electric and Alternate Fuels.
Corp. Source Codes: 052661271; 9514738
Report No.: DOE/EIA-0584(93)
6 Dec 94 283p
Languages: English
Journal Announcement: GRAI9510; ERA9516
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NTIS Prices: PC A13/MF A03

... FIA-0125). This report presents additional tables and expanded versions of tables previously presented in **Coal Production**, including **production**, number of mines, **Productivity**, employment, productive capacity, and recoverable reserves. This report also presents data on **coal** consumption, **coal** distribution, coal stocks, coal prices, coal **quality**, and emissions for a wide audience including the Congress, Federal and State agencies, the **coal** industry, and the general public. In addition, Appendix A contains a compilation of **coal** statistics for the major **coal** - **producing** States. This report does not include **coal** consumption data for nonutility Power **Producers** who are not in the manufacturing, agriculture, mining, construction, or commercial sectors. This consumption is...

17/3,K/48 (Item 21 from file: 6)
DIALOG(R)File 6:NTIS
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1846901 NTIS Accession Number: DE94791340
1993 nendo sekitan seisan riyo gijutsu shinkohi hojokin sekitan riyo jisedai gijutsu kaihatsu chosa. Hatsudensho seino oyobi cost ni taisuru

sekitan hinshitsu no eikyo. (Fiscal 1993 coal utilization next generation technology development survey by coal production /utilization technology promotion subsidies. Effect of coal quality on power plant performance and cost)

New Energy Development Organization, Tokyo (Japan).

Corp. Source Codes: 085267000; 9901824

Report No.: NEDO-C-9322

Mar 94 268p

Languages: Japanese

Journal Announcement: GRAI9504; ERA9501

Japanese.

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NTIS Prices: PC A12/MF A03

... gijutsu kaihatsu chosa. Hatsudensho seino oyobi cost ni taisuru sekitan hinshitsu no eikyo. (Fiscal 1993 coal utilization next generation technology development survey by coal production /utilization technology promotion subsidies. Effect of coal quality on power plant performance and cost)

...coal cleaning on combustion performance of Illinois No. 5 and 6 coals, estimating benefits from coal cleaning, effects of ash levels on large pulverized coal -fired furnace performance, coal quality impact on electric power generation costs, coal quality field test at New England Power Company's Salem Harbor unit 3, etc. Relating to the papers about coal quality correlation...

17/3,K/49 (Item 22 from file: 6)

DIALOG(R) File 6:NTIS

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1846899 NTIS Accession Number: DE94791338

1993 nendo sekitan seisan riyo gijutsu shinkohi hojokin sekitan riyo jisedai gijutsu kaihatsu chosa. Sekitan seijo-hatsuden setsubi seino ni taisuru eikyo. (Fiscal 1993 coal utilization next generation technology survey by coal production/utilization technology promotion subsidies. Coal specifications-impact on power station performance)

New Energy Development Organization, Tokyo (Japan).

Corp. Source Codes: 085267000; 9901824

Report No.: NEDO-C-9315

Mar 94 199p

Languages: Japanese

Journal Announcement: GRAI9504; ERA9501

Japanese.

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NTIS Prices: PC A09/MF A03

IEA Coal Research surveys effects of coal properties on power generation facilities using power fuel. Coal specifications sometimes include trace amounts of element and macerals as well as calorific value, ash...

17/3,K/50 (Item 23 from file: 6)

DIALOG(R)File 6:NTIS
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1817472 NTIS Accession Number: DE94009701

Development of a Coal Quality Expert. Final technical progress report No. 14, (July--September 1993)

CQ, Inc., Homer City, PA.
Corp. Source Codes: 101161000; 9528664
Sponsor: Department of Energy, Washington, DC.
Report No.: DOE/PC/89663-T12
17 Jan 94 5p
Languages: English
Journal Announcement: GRAI9419; ERA9435
Sponsored by Department of Energy, Washington, DC.
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NTIS Prices: PC A01/MF A01

... utility industry with a PC expert system to confidently and inexpensively evaluate the potential for **coal** cleaning, blending, and switching options to reduce emissions while **producing** lowest **cost electricity**. Specifically, this project will: (1) Enhance the existing **Coal Quality** Information System (CQIS) database and **Coal Quality** Impact **Model** (CQIM) to allow confident assessment of the effects of cleaning on specific boiler cost and...

17/3,K/51 (Item 24 from file: 6)

DIALOG(R)File 6:NTIS
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1799672 NTIS Accession Number: DE94004382

Clean coal technologies: Research, development, and demonstration program plan

Department of Energy, Washington, DC.
Corp. Source Codes: 052661000; 9512004
Report No.: DOE/FE-0284
1993 112p
Languages: English
Journal Announcement: GRAI9413; ERA9424
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NTIS Prices: PC A06/MF A02

... that will enable the nation to use its plentiful domestic coal resources while meeting environmental **quality** requirements. The program provides the basis for making **coal** a low- **cost**, environmentally sound energy choice for **electric power generation** and fuels production. These programs are briefly described.

17/3,K/52 (Item 25 from file: 6)

DIALOG(R)File 6:NTIS
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1766727 NTIS Accession Number: DE93017463

**Development of a Coal Quality Expert. Technical progress report No. 6,
(July 1--September 30, 1991)**

CQ, Inc., Homer City, PA.

Corp. Source Codes: 101161000; 9528664

Sponsor: Department of Energy, Washington, DC.

Report No.: DOE/PC/89663-6

20 Nov 91 70p

Languages: English

Journal Announcement: GRAI9402; ERA9354

Sponsored by Department of Energy, Washington, DC.

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A04/MF A01

... utility industry with a PC expert system to confidently and inexpensively evaluate the potential for **coal** cleaning, blending, and switching options to reduce emissions while **producing** lowest **cost electricity**. Specifically, this project will: Enhance the existing **Coal Quality** Information System (CQIS) database and **Coal Quality Impact Model** (CQIM) to allow confident assessment of the effects of cleaning on specific boiler cost and...

17/3,K/53 (Item 26 from file: 6)

DIALOG(R)File 6:NTIS

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1739972 NTIS Accession Number: DE93012267

**Development of a Coal Quality Expert. Technical progress report No. 10,
Final report**

CQ, Inc., Homer City, PA.

Corp. Source Codes: 101161000; 9528664

Sponsor: Department of Energy, Washington, DC.

Report No.: DOE/PC/89663-T9

21 Dec 92 10p

Languages: English

Journal Announcement: GRAI9318; ERA9336

Sponsored by Department of Energy, Washington, DC.

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NTIS Prices: PC A02/MF A01

... utility industry with a PC expert system to confidently and inexpensively evaluate the potential for **coal** cleaning, blending, and switching options to reduce emissions while **producing** lowest **cost electricity**. Specifically, this project will: (1) Enhance the existing **Coal Quality** Information System (CQIS) database and **Coal Quality Impact Model** (CQIM) to allow confident assessment of the effects of cleaning on specific boiler cost and...

17/3,K/54 (Item 27 from file: 6)

DIALOG(R)File 6:NTIS

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1726033 NTIS Accession Number: DE93008036

Development of a Coal Quality Expert. Final technical progress report No.

9

CQ, Inc., Homer City, PA.

Corp. Source Codes: 101161000; 9528664

Sponsor: Department of Energy, Washington, DC.

Report No.: DOE/PC/89663-T8

8 Sep 92 9p

Languages: English

Journal Announcement: GRAI9314; ERA9328

Sponsored by Department of Energy, Washington, DC.

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A02/MF A01

... utility industry with a PC expert system to confidently and inexpensively evaluate the potential for **coal** cleaning blending, and switching options to reduce emissions while **producing** lowest **cost electricity**. Specifically, this project will: (1) Enhance the existing **Coal Quality** Information System (CQIS) database and. **Coal Quality Impact Model** (CQIM) to allow confident assessment of the effects of cleaning on specific boiler cost and...

17/3,K/55 (Item 28 from file: 6)

DIALOG(R)File 6:NTIS

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1722265 NTIS Accession Number: IEA-CR/52

Coal Specifications: Impact on Power Station Performance

Storupska, N.

International Energy Agency Coal Research, London (England).

Corp. Source Codes: 073269000

Report No.: IEACR/52; ISBN-92-9029-210-5

1993 121p

Languages: English

Journal Announcement: GRAI9313

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC\$90.00/MF\$90.00

The report examines the impacts of **coal properties** on **power station** performance. As most of the **coal** used to **generate electricity** is consumed as pulverized fuel, the focus of the report is on performance in pulverized...

17/3,K/56 (Item 29 from file: 6)

DIALOG(R)File 6:NTIS

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1715568 NTIS Accession Number: DE93003486

Gasifiers optimized for fuel cell applications

Steinfeld, G. ; Fruchtmann, J. ; Hauserman, W. B. ; Lee, A. ; Meyers, S. J.

Energy Research Corp., Danbury, CT.

Corp. Source Codes: 062915000; 9503402

Sponsor: Department of Energy, Washington, DC.
Report No.: CONF-920951-50
1992 9p

Languages: English Document Type: Conference proceeding
Journal Announcement: GRAI9311; ERA9320

US Department of Energy contractors review meeting on gasification and gas stream cleanup systems, Morgantown, WV (United States), 15-17 Sep 1992. Sponsored by Department of Energy, Washington, DC.

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A02/MF A01

... in some efficiency and cost penalties. This effort is designed to study advanced means of **power** generation by integrating the gasification process with the unique operating **characteristics** of carbonate fuel cells to achieve a more efficient and **cost** effective **coal** based **power generating** system. This is to be done by altering the gasification process to produce fuel gas...

17/3,K/57 (Item 30 from file: 6)

DIALOG(R)File 6:NTIS

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1688245 NTIS Accession Number: PB93-114171

Using the CQIM to Assess the Benefits of Gas Cofiring. Topical Report, December 1990

Anderson, A. A. ; Mitas, D. W. ; Stallard, G. S. ; McDaniel, D. L.
Black and Veatch, Kansas City, MO.

Corp. Source Codes: 004154000

Sponsor: Gas Research Inst., Chicago, IL.

Report No.: GRI-91/0157

Dec 90 35p

Languages: English

Journal Announcement: GRAI9302

Sponsored by Gas Research Inst., Chicago, IL.

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A03/MF A01

The capability of the **Coal Quality Impact Model (CQIM)**, which presently **models** the performance and **operating costs** of **power** plants that burn only **coal**, was evaluated to consider gas cofiring. The report includes an explanation of how the CQIM...

17/3,K/58 (Item 31 from file: 6)

DIALOG(R)File 6:NTIS

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1673042 NTIS Accession Number: DE92013908

Development of a Coal Quality Expert. Technical progress report No. 4

CQ, Inc., Homer City, PA.

Corp. Source Codes: 101161000; 9528664;

Sponsor: Combustion Engineering, Inc., Windsor, CT (United States).; Department of Energy, Washington, DC.

Report No.: DOE/PC/89663-T6

8 Jul 91 35p

Languages: English

Journal Announcement: GRAI9222; ERA9244

Sponsored by Department of Energy, Washington, DC.

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A03/MF A01

... utility industry with a PC expert system to confidently and inexpensively evaluate the potential for **coal** cleaning, blending, and switching options to reduce emissions while **producing** lowest **cost electricity**. Specifically, this project will: (1) Enhance the existing **Coal Quality** Information System database and **Coal Quality** Impact **Model** to allow confident assessment of the effects of cleaning on specific boiler cost and performance...

17/3,K/59 (Item 32 from file: 6)

DIALOG(R)File 6:NTIS

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1662777 NTIS Accession Number: DE92010149

Developing a coal quality expert: The prediction of ash deposit effects on boiler performance

Thornock, D. E. ; Borio, R. W. ; Mehta, A. K.

ABB/Combustion Engineering, Inc., Windsor, CT.

Corp. Source Codes: 104182000; 9528030

Sponsor: Department of Energy, Washington, DC.

Report No.: CONF-911041-7

1991 14p

Languages: English Document Type: Conference proceeding

Journal Announcement: GRAI9219; ERA9239

Annual international Pittsburgh coal conference (8th), Pittsburgh, PA (United States), 14-18 Oct 1991. Sponsored by Department of Energy, Washington, DC.

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A03/MF A01

... the Coal Quality Expert (CQE) Clean Coal I Program is the development of a Coal **Quality** Expert -- a comprehensive PC based expert system for evaluating the potential for **coal** cleaning, blending and switching options to reduce emissions while **producing** the lowest **cost electricity**. A key part of the CQE **model** will be the development of a sub-model to predict the effects of ash deposition...

17/3,K/60 (Item 33 from file: 6)

DIALOG(R)File 6:NTIS

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1641114 NTIS Accession Number: DE92005194

Development of the coal quality expert: Project evaluation plan. (Technical progress report, May--July 1990)

CQ, Inc., Homer City, PA.

Corp. Source Codes: 101161000; 9528664;
Sponsor: Combustion Engineering, Inc., Windsor, CT (United States).;
Department of Energy, Washington, DC.

Report No.: DOE/PC/89663-T4

31 Aug 90 5p

Languages: English

Journal Announcement: GRAI9212; ERA9225

Sponsored by Department of Energy, Washington, DC.

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A01/MF A01

... utility industry with a PC expert system to confidently and inexpensively evaluate the potential for **coal** cleaning, blending, and switching options to reduce emissions while **producing** lowest **cost electricity**. Specifically, this project will: (1) Enhance the existing **Coal Quality** Information System database and **Coal Quality** Impact **Model** to allow confident assessment of the effects of cleaning on specific power plant costs and...

17/3,K/61 (Item 34 from file: 6)

DIALOG(R)File 6:NTIS

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1590719 NTIS Accession Number: DE91012038

Novel scheme for making cheap electricity with nuclear energy

Pettibone, J. S.

Lawrence Livermore National Lab., CA.

Corp. Source Codes: 068147000; 9513035

Sponsor: Department of Energy, Washington, DC.

Report No.: UCRL-JC-107068; CONF-910626-1

Apr 91 24p

Languages: English Document Type: Conference proceeding

Journal Announcement: GRAI9119; ERA9140

International conference on emerging nuclear energy systems (6th), Monterey, CA (USA), 16-21 Jun 1991. Sponsored by Department of Energy, Washington, DC.

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A03/MF A01

Nuclear fuels should **produce** cheaper **electricity** than **coal**, considering their high specific energy and low cost. To exploit these **properties**, the scheme proposed here replaces the expensive reactor/steam-turbine system with an engine in...

17/3,K/62 (Item 35 from file: 6)

DIALOG(R)File 6:NTIS

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1578238 NTIS Accession Number: DE91008530

Development of a coal quality expert. Technical progress report No. 2, (July 1-September 30, 1990)

CQ, Inc., Homer City, PA.

Corp. Source Codes: 101161000; 9528664
Sponsor: Department of Energy, Washington, DC.
Report No.: DOE/PC/89663-T1
9 Jan 91 30p
Languages: English
Journal Announcement: GRAI9115; ERA9133
Sponsored by Department of Energy, Washington, DC.
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NTIS Prices: PC A03/MF A01

... utility industry with a PC expert system to confidently and inexpensively evaluate the potential for **coal** cleaning, blending, and switching options to reduce emissions while **producing** lowest **cost electricity**. Specifically, this project will: enhance the existing **Coal Quality** Information System (CQIS) database and **Coal Quality Impact Model** (CQIM) to allow confident assessment of the effects of cleaning on specific boiler cost and...

17/3,K/63 (Item 36 from file: 6)
DIALOG(R)File 6:NTIS
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1386692 NTIS Accession Number: DE88701977

Nuclear Power in the US Fuel Balance. Slowing down of the Nuclear Power Rate of Growth

Chernysheva, A. K. ; Kotel'nikov, G. A. ; Popov, V. K. ; Romanovskij, M. K.

Gosudarstvennyi Komitet po Ispol'zovaniyu Atomnoi Energii SSSR, Moscow. Inst. Atomnoi Energii.

Corp. Source Codes: 011711006; 2847000

Report No.: IAE-4316/3

1986 20p

Languages: Russian

Journal Announcement: GRAI8821

In Russian.

U.S. Sales Only. Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A03/MF A01

... increase in construction duration deteriorated by financial consequences of the crisis has contributed to NPP **cost** growth. As a result, **power generation cost** at NPPs and **coal** TPPs became equal. Ways to increase competitiveness of NPPs as compared to **coal** TPPs for the USA presuppose improvement of operation **characteristics** of NPPs and their construction period decrease. 32 refs.; 6 tabs. (Atomindex citation 19:041725)

17/3,K/64 (Item 37 from file: 6)
DIALOG(R)File 6:NTIS
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1296499 NTIS Accession Number: DE87002508

System Analysis of Simplified IGCC (Integrated Gasification Combined

Cycle) Plants

General Electric Corporate Research and Development, Schenectady, NY.

Corp. Source Codes: 063139000; 9513631

Sponsor: Department of Energy, Washington, DC.

Report No.: DOE/ET/14928-2233

Sep 86 105p

Languages: English

Journal Announcement: GRAI8713; NSA1200

Portions of this document are illegible in microfiche products. Original copy available until stock is exhausted. Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A06/MF A01

The Integrated Gasification Combined Cycle (IGCC) has been identified as an advanced **coal -to- electricity power generation** system with the potential for attractive performance and economic **characteristics**. A 100 MW demonstration of this concept has been constructed on the Southern California Edison...

17/3,K/65 (Item 38 from file: 6)

DIALOG(R)File 6:NTIS

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1204467 NTIS Accession Number: DE85015603

Gas Turbine Systems Research and Development CWM Industrial Energy System Application Study. Third Topical Report, October 1, 1984-May 31, 1985

Giramonti, A. J.

United Technologies Research Center, East Hartford, CT.

Corp. Source Codes: 100940000; 9501195

Sponsor: Department of Energy, Washington, DC.

Report No.: DOE/MC/20241-1900

Jul 85 193p

Languages: English

Journal Announcement: GRAI8526; NSA1000

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NTIS Prices: PC A09/MF A01

Past attempts to develop advanced **power generation** systems burning **coal** -derived fuels have had limited commercial success. The reasons for this include continued technological difficulties...

... gas turbine technology identified during recent industrial and aircraft development programs with emerging technology for **producing coal** -derived fuels of intermediate **quality**. In this manner, the potential exists for leapfrogging to an attractive coal-burning power system...

17/3,K/66 (Item 39 from file: 6)

DIALOG(R)File 6:NTIS

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1135567 NTIS Accession Number: DE84014183

Advanced Coal Cleaning: Impact of Coal Quality on Downstream Processes. Final Technical Report

Engineering Foundation, New York.

Corp. Source Codes: 056165000; 9500567

Sponsor: Department of Energy, Washington, DC.

Report No.: CONF-840107-ABSTS.

1984 38p

Languages: English Document Type: Conference proceeding

Journal Announcement: GRAI8425; NSA0900

Advanced coal cleaning conference, Santa Barbara, CA, USA, 8 Jan 1984.

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NTIS Prices: PC A03/MF A01

...the coal producers and the coal users on the question of the impact of coal **quality** on the costs of producing **electricity**. The advantages of using **coal** for this purpose are obvious and significant. The point of view of the **coal producers** was that **coal** can be cleaned to fairly high **quality** levels with existing technology. The **coal** industry is ready to meet any reasonable demands made on it by the utilities. The...

17/3,K/67 (Item 40 from file: 6)

DIALOG(R)File 6:NTIS

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1050154 NTIS Accession Number: METC/CR-79/1

Systems Study of Commercial Scale Atmospheric Fluidized-Bed Combustion with Appendices

TRW Energy Systems Group, Morgantown, WV.

Corp. Source Codes: 065806000; 9507873

Sponsor: Department of Energy, Washington, DC.

Feb 79 616p

Languages: English

Journal Announcement: GRAI8322; NSA0500

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NTIS Prices: PC A99/MF A01

... The optimization of any coal cleaning AFBC/FGD system is highly dependent on the input **coal characteristics** and the end-use application. Sorbent consumption and **electric generating cost** or heat rate cannot be simultaneously minimized; however, the cost minima are fairly broad in...

17/3,K/68 (Item 41 from file: 6)

DIALOG(R)File 6:NTIS

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1007136 NTIS Accession Number: DE82021751

Projected Costs of Electricity from Nuclear and Coal-Fired Power Plants. Volume 1

Reynolds, A.

Department of Energy, Washington, DC. Energy Information Administration.

Corp. Source Codes: 052661034; 9506182

Report No.: DOE/EIA-0356/1

Aug 82 69p

Languages: English

Journal Announcement: GRAI8308; NSA0700

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NTIS Prices: PC A04/MF A01

...into operation, starting with an initial investment decision today. It is assumed that nuclear and **coal**-fired **generating** plants represent the most **coal**-effective options for baseload service in the foreseeable future. Either option is expected to produce baseload **power** for one-half to one-third of the marginal running costs of operating existing oil...

... of the United States in order to accommodate regional differences in labor and material costs, **coal characteristics**, and transportation distances and costs. Further, the major factors that affect **coal** and nuclear **generation costs** - licensing and construction leadtimes, vintages of technology, cost of financing, and reliability - are investigated with...

17/3,K/69 (Item 42 from file: 6)

DIALOG(R)File 6:NTIS

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0974473 NTIS Accession Number: PB82-224726/XAB

Energy Siting in Utah: A Programming Model

Synder, D. L. ; Keith, J. E. ; Glover, T. F. ; Wooldridge, G. L.

Utah Water Research Lab., Logan.

Corp. Source Codes: 016805000

Sponsor: Office of Water Research and Technology, Washington, DC.

Report No.: UWRL/P-81/04; W82-05297; OWRT-A-047-UTAH(1)

Jun 81 61p

Languages: English

Journal Announcement: GRAI8221

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NTIS Prices: PC A04/MF A01

... determined for a region constrained by resource availabilities and/or policy constraints, using a conceptual **model** of a multiple-**product** firm. A linear programming **model** was developed to determine optimal water allocation between agricultural and **coal**-fired **power** plants and the trade-offs which could occur if **electrical generation** were increased. Other potential trade-offs examined included **coal** source restrictions and air **quality** regulations. Also included were **coal** mining, transportation costs, and pollutant (SO₂, nitrogen oxides, particulates) emission rates on a coal and...

17/3,K/70 (Item 43 from file: 6)

DIALOG(R)File 6:NTIS

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0900372 NTIS Accession Number: DOE/TIC-11440/XAB

Coal and Ash Blend Analysis of a Bituminous and a Subbituminous Coal

Bruns, J. M. B.

Ames Lab., IA.

Corp. Source Codes: 001709000; 0305000
Sponsor: Department of Energy, Washington, DC.
Feb 81 252p
Languages: English
Journal Announcement: GRAI8119; NSA0600
Thesis.

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A12/MF A01

... maximum alkalis, maximum grindability, and minimum ash fusion temperatures. Blending will offer other benefits to **coal**-fired **power generating** plants. The capital **cost** of boilers can be reduced if variations in the fuel **properties** can be reduced. If the heating value is kept constant, the required boiler size will...

17/3,K/71 (Item 44 from file: 6)
DIALOG(R)File 6:NTIS
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0878687 NTIS Accession Number: INIS-MF-5694/XAB

Power Generation Costs Coal - Nuclear Power. Comparing Investment and Operating Costs of Coal-Fired and Nuclear Power Plants. Text Volume

Battelle-Inst. e.V., Frankfurt am Main (Germany, F.R.).

Corp. Source Codes: 003825000; 0745900

1979 101p

Languages: German

Journal Announcement: GRAI8111

In German.

U.S. Sales Only. Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A06/MF A01

In the discussion on the necessity of nuclear **power**, even exports have disagreed on the **costs** of **power generation** in nuclear and **coal**-fired **power** plants. To clear up this problem, the Battelle-Institut e.V., Frankfurt has, in 1976...

... the task to carry out a study titled 'Comparison of Investment and Operating Costs of **Coal**-fired and Nuclear **Power** Plants.' An 'Estimate of Direct and Indirect **Costs** of **Power Generation** in **Coal**-fired and Nuclear **Power** Plants until 1990' was to be set up. The **characteristic** cost factors of these types of **power** plant were to be explained for a comparison of development trends, and alternative cost calculations...

17/3,K/72 (Item 45 from file: 6)
DIALOG(R)File 6:NTIS
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0847842 NTIS Accession Number: ORNL-5552/XAB

Buildings Energy Use Data Book. Edition 2

Blue, J. L. ; Lowe, K. H. ; Hurlbut, B. J. ; Liepins, G. E. ; Rose, A. B.
Oak Ridge National Lab., TN.

Corp. Source Codes: 4832000

Sponsor: Department of Energy, Washington, DC.

Report No.: ORNL-5363(2ED.)

Dec 79 706p

Languages: English

Journal Announcement: GRAI8025; NSA0500

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A99/MF A01

... tables, graphs, and charts. The topics covered in the nine chapters include: (1) building stock **characteristics**, including construction trends, inventories, and physical and thermal **characteristics**; (2) appliance shipments, inventories, **prices**, and energy utilization efficiencies; (3) fuel **production**, consumption, and **prices** for the major energy sources (**electricity**, natural gas, liquid petroleum, and **coal**); (4) demographic and climatic variables, including data on energy use vs population by region and...

17/3,K/73 (Item 46 from file: 6)

DIALOG(R)File 6:NTIS

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0821607 NTIS Accession Number: FE-2215-12/XAB

Critical Contributions in MHD Power Generation. Quarterly Technical Progress Report, December 1, 1977-February 28, 1978

Louis, J. F.

Massachusetts Inst. of Tech., Cambridge. Energy Lab.

Corp. Source Codes: 001450229; 9500636

Sponsor: Department of Energy, Washington, DC.

Mar 78 286p

Languages: English

Journal Announcement: GRAI8016; NSA0500

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NTIS Prices: PC A13/MF A01

... support performance analyses of MHD electrode modules and insulator materials; (2) parametrically investigate selected electrode **properties** of critical design importance in chemical, thermal, and **electrical** environments simulating a **coal** -fired MHD generator; (3) develop combustion data pertinent to the design of MHD combustors; (4) establish techniques for...

17/3,K/74 (Item 47 from file: 6)

DIALOG(R)File 6:NTIS

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0774983 NTIS Accession Number: FE-2542-10(V.1)/XAB

Phase I: the Pipeline Gas Demonstration Plant. Design and Evaluation of Commercial Plant. Volume 1. Executive Summary

Continental Oil Co., Stamford, CT.

Corp. Source Codes: 9506998

Sponsor: Department of Energy.

1978 41p

Languages: English

Journal Announcement: GRAI7922; NSA0400

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NTIS Prices: PC A03/MF A01

... manufacture 241.7 million standard cubic feet per stream day of 960 Btu/SCF pipeline **quality** gas from 21,367 tons per day of Illinois No. 6 **coal**, including the **coal** requirements for both gasification and steam/**power generation**. The **product** gas is estimated to **cost** \$6.60 per million Btu for industrial financing (12% DCF, 20-year life) and \$5...

17/3,K/75 (Item 48 from file: 6)

DIALOG(R)File 6:NTIS

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0748668 NTIS Accession Number: FE-2215-9/XAB

Critical Contributions in MHD Power Generation. Quarterly Technical Progress Report, June 1--August 31, 1977

Louis, J. F.

Massachusetts Inst. of Tech., Cambridge. Energy Lab.

Corp. Source Codes: 9500636

Sponsor: Department of Energy.

Oct 77 254p

Languages: English

Journal Announcement: GRAI7911; NSA0400

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NTIS Prices: PC A12/MF A01

... support performance analyses of MHD electrode modules and insulator materials; (2) Parametrically investigate selected electrode **properties** of critical design importance in chemical, thermal, and **electrical** environments simulating a **coal** -fired MHD **generator**; (3) Develop combustion data pertinent to the design of MHD combustors; this work is intended...

17/3,K/76 (Item 49 from file: 6)

DIALOG(R)File 6:NTIS

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0740187 NTIS Accession Number: FE-2215-10/XAB

Critical Contributions in MHD Power Generation. Quarterly Technical Progress Report, September 1--November 30, 1977

Louis, J. F.

Massachusetts Inst. of Tech., Cambridge. Energy Lab.

Corp. Source Codes: 9500636

Sponsor: Department of Energy.

Dec 77 188p

Languages: English

Journal Announcement: GRAI7907; NSA0400

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Springfield, VA, 22161, USA.

NTIS Prices: PC A09/MF A01

... support performance analyses of MHD electrode modules and insulator materials; (2) parametrically investigate selected electrode **properties** of critical design importance in chemical, thermal, and **electrical** environments simulating a **coal** -fired MHD **generator** ; (3) develop combustion data pertinent to the design of MHD combustors; this work is intended...

17/3,K/77 (Item 50 from file: 6)

DIALOG(R)File 6:NTIS

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0738362 NTIS Accession Number: LBL-6334/XAB

Energy Utilization and Environmental Control Technologies in the Coal-Electric Cycle

Ferrell, G. C.

California Univ., Berkeley. Lawrence Berkeley Lab.

Corp. Source Codes: 1112800

Sponsor: Department of Energy.

Oct 77 201p

Languages: English

Journal Announcement: GRAI7906; NSA0300

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A10/MF A01

... also includes a discussion, helpful for policy making decisions, of the process operation, environmental emission **characteristics** , market constraints and detailed cost estimates for each of these technologies, with primary emphasis on **coal** preparation, **coal - electric generation** and emissions control systems. (ERA citation 03:056411)

17/3,K/78 (Item 51 from file: 6)

DIALOG(R)File 6:NTIS

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0730879 NTIS Accession Number: ANL/ECT-3(APP.A)(PT.1)/XAB

Environmental Control Implications of Generating Electric Power from Coal. 1977 Technology Status Report. Appendix A, Part 1. Coal Preparation and Cleaning Assessment Study

Bechtel Corp., San Francisco, CA.

Corp. Source Codes: 0764000

Sponsor: Department of Energy.

Dec 77 607p

Languages: English

Journal Announcement: GRAI7902; NSA0300

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NTIS Prices: PC A99/MF A01

This report evaluates the state of the art and effectiveness of physical **coal** cleaning as a potential strategy for controlling SO/sub x/ emissions

in coal fired power generation . Coal properties which are significantly altered by physical coal cleaning were determined. The effects of the changes in properties as they relate to pulverized coal firing, fluidized bed combustion and low Btu gasification for combined cycle powered generation were studied. Available coal washability data were integrated by computer with U.S. coal reserve data. Approximately 18% of the demonstrated coal reserve were matched with washability data. Integrated...

17/3,K/79 (Item 52 from file: 6)

DIALOG(R)File 6:NTIS

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0727738 NTIS Accession Number: PB-285 627/6/XAB

A Review of Regional-Scale Air Quality Models for Long Distance Dispersion Modeling in the Four Corners Region

(Contract rept)

Nuber, J. A. ; Bass, A. ; Mills, M. T. ; Morris, C. S.

Environmental Research and Technology, Inc., Concord, Mass.

Corp. Source Codes: 391776

Sponsor: Environmental Protection Agency, Washington, D.C. Office of Energy, Minerals and Industry.; National Oceanic and Atmospheric Administration, Research Triangle Park, N.C. Meteorology Lab.

Report No.: EPA/600/7-78/066

Apr 78 85p

Journal Announcement: GRAI7826

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NTIS Prices: PC A05/MF A01

... and apply long-range atmospheric transport and diffusion models suitable to the simulation of air quality impact associated with emissions from new energy resource development (power generation , coal gasification, oil shale processing) in the Four Corners Area of the Western United States. In...

17/3,K/80 (Item 53 from file: 6)

DIALOG(R)File 6:NTIS

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0693675 NTIS Accession Number: FE-2215-7/XAB

Critical Contributions in MHD Power Generation. Quarterly Technical Progress Report, December 1, 1976--February 28, 1977

Louis, J. F.

Massachusetts Inst. of Tech., Cambridge. Energy Lab.

Corp. Source Codes: 9500636

Sponsor: Department of Energy.

Aug 77 159p

Journal Announcement: GRAI7814; NSA0300

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NTIS Prices: PC A08/MF A01

... fabrication of high field strength superconducting magnets for MHD

applications; (3) parametrically investigate selected electrode **properties** of critical design importance in chemical, thermal, and **electrical** environments simulating a **coal** -fired MHD **generator** ; (4) develop combustion data pertinent to the design of MHD combustors; (5) establish techniques for...

17/3,K/81 (Item 54 from file: 6)

DIALOG(R)File 6:NTIS

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0693674 NTIS Accession Number: FE-2215-5/XAB

Critical Contributions in MHD Power Generation. Quarterly Technical Progress Report, June 1--August 31, 1976

Louis, J. F.

Massachusetts Inst. of Tech., Cambridge. Energy Lab.

Corp. Source Codes: 9500636

Sponsor: Department of Energy.

Oct 76 145p

Journal Announcement: GRAI7814; NSA0300

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NTIS Prices: PC A07/MF A01

... support performance analyses of MHD electrode modules and insulator materials; (2) parametrically investigate selected electrode **properties** of critical design importance in chemical, thermal, and **electrical** environments simulating a **coal** -fired MHD **generator** ; (3) develop combustion data pertinent to the design of MHD combustors; (4) establish techniques for...

17/3,K/82 (Item 55 from file: 6)

DIALOG(R)File 6:NTIS

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0675616 NTIS Accession Number: FE-2442-1/XAB

Application of Near-Term Fossil Technologies to the Energy Supply/Demand Profiles of the U.S. States and Regions

Systems Consultants, Inc., Washington, D.C.

Corp. Source Codes: 9504859

Sponsor: Energy Research and Development Administration.

Jan 77 186p

Journal Announcement: GRAI7807; NSA0200

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NTIS Prices: PC A09/MF A01

... application and are most likely to have a major impact on the supply/demand energy **characteristics** of the regions: Direct combustion of **coal** in atmospheric fluidized beds; low-Btu gas from **coal** for **power generation** and combined cycles; **power** plant technology; high-Btu gasification in entrained and fluidized beds; improved railroad coal-handling facilities...

17/3,K/83 (Item 56 from file: 6)
DIALOG(R)File 6:NTIS
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0533413 NTIS Accession Number: PB-247 073/0/XAB

Short-Term Coal Forecast, 1975-1980

(Final rept)

ICF, Inc., Washington, D.C.

Sponsor: Federal Energy Administration, Washington, D.C. Office of Coal.

Report No.: FEA/G-75/494

Aug 75 120p

Journal Announcement: GRAI7605

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NTIS Prices: PC A06/MF A01

...breakdowns of the 1975-1980 supply and demand projections; an analysis of why increases in **coal** production capacity are likely to be insufficient to meet the requirements of new **coal**-fired **electrical generation** capacity; a list of **coal quality characteristics** of the supply regions developed for Project Independence; and an analysis of short-term **coal production** responses to any change in spot market **coal** prices.

17/3,K/84 (Item 57 from file: 6)
DIALOG(R)File 6:NTIS
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0427090 NTIS Accession Number: PB-227 472/8/XAB

Social Accounting Approaches to Water Resource Use in Economic Development

(Research rept)

Street, D. R.

Auburn Univ., Ala. Water Resources Research Inst.

Report No.: W74-03907; OWRR-B-029-ALA(3)

Aug 72 114p

Journal Announcement: GRAI7407

Prepared in cooperation with Auburn Univ., Ala. School of Business Research Series 3.

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NTIS Prices: PC A06/MF A01

... production, consumption and disposal decisions on level and form of residuals was also examined. The **modeling** effort illustrates the flow of residuals and **costs** arising from **power generation** from either **coal** or nuclear fuel. The effect of water **quality** on regional growth was examined using an input-output model. A decrease in usable water...

17/3,K/85 (Item 58 from file: 6)
DIALOG(R)File 6:NTIS
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0073792 NTIS Accession Number: PB-170 035/XAB

Wilkeson Area Coal Study (Pierce County, Washington)

Bureau of Mines, Seattle Wash. Coal Research Lab.

Jun 63 53p

Journal Announcement: USGRDR6612

Prepared in cooperation with Zinder (H) and Associates, Seattle, Wash. for Area Redevelopment Administration, Washington, D. C.

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NTIS Prices: PC A04/MF A01

... deemed possible of attainment. Cleaning problems are also posed but can be solved by present **coal** -preparation techniques. The development of markets to absorb output at **prices** adequate to support economic operations, once **productivity** is improved, is probable. Processing mine output into coking **coal** for sale to Japan accompanied by stockpiling second- **quality** middling coal for future use as fuel in thermal- **electric** generating plants is the most probable of several alternative production situations. Storage of middlings presents...

17/3,K/86 (Item 1 from file: 8)

DIALOG(R)File 8:EI Compendex(R)

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05804238 E.I. No: EIP00025062131

Title: Effective utilization of remote coal through dimethyl ether synthesis

Author: Adachi, Y.; Komoto, M.; Watanabe, I.; Ohno, Y.; Fujimoto, K.

Corporate Source: Univ of Tokyo, Tokyo, Jpn

Conference Title: Proceedings of the 1999 International Symposium on Fundamentals for Innovative Coal Utilization

Conference Location: Sapporo, Jpn Conference Date: 20990202-20990204

E.I. Conference No.: 56364

Source: Fuel v 79 n 3-4 Jan 2000. p 229-234

Publication Year: 2000

CODEN: FUELAC ISSN: 0016-2361

Language: English

Abstract: Dimethyl ether (DME) is a clean and sustainable alternative fuel that can be **produced** from natural gas, **coal** or other organic resources through syngas. The **properties** of DME are suitable for the production of **power** generation fuel, transportation fuel, home fuel and chemicals. Production of DME fuel from unutilized natural...

17/3,K/87 (Item 2 from file: 8)

DIALOG(R)File 8:EI Compendex(R)

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04992645 E.I. No: EIP98044161997

Title: Coal Blend Automation System (CBAS) for power plants

Author: Hickinbotham, Andrew; Hill, Duane L.; Sehgal, Randhir

Corporate Source: TransAlta Utilities Corp, Calgary, Alberta, Can

Conference Title: Proceedings of the 1997 Air & Waste Management Association's 90th Annual Meeting & Exhibition

Conference Location: Toronto, Can Conference Date: 19970608-19970613

E.I. Conference No.: 48211

Source: Proceedings of the Air & Waste Management Association's Annual

Meeting & Exhibition 1997. Air & Waste Management Assoc, Pittsburgh, PA, USA. 10p 97-MP11.07

Publication Year: 1997

CODEN: PAMEE5

Language: English

Abstract: In the **production** of **power**, **coal** is the most important input both in technical and economic terms. Its **quality** often varies and is generally not controlled. Further, a number of utilities are now buying ...

17/3,K/88 (Item 3 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

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04618470 E.I. No: EIP97023526422

Title: Cost minimization model for coal import strategy

Author: Lai, Jeng-Wen; Chen, Chia-Yon

Corporate Source: Natl Cheng Kung Univ, Tainan, Taiwan

Source: Energy Policy v 24 n 12 Dec 1996. p 1111-1117

Publication Year: 1996

CODEN: ENPYAC ISSN: 0301-4215

Language: English

...Abstract: increase the efficiency of boilers, this paper represents an effort to provide information for Taiwan **Power** Company to programme steam **coal** with different **characteristics** imported from various regions. A blending problem with integer constraints on minimum usage to meet the practical **operation** of **power** station is also presented. Recommendations are made for implementation. The **model** can be used to plan future **coal** import strategy, as well as to study the effect of **cost** changes by making the sensitivity test. Real **operational** data from the Taiwan **Power** Company are used for testing purposes. (Author abstract) 8 Refs.

17/3,K/89 (Item 4 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

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04144138 E.I. No: EIP95012523415

Title: Justifying on-line performance monitoring systems

Author: Jonas, Todd S.

Corporate Source: Black & Veatch, Kansas City, MO, USA

Conference Title: Proceedings of the ASME Joint International Power Generation Conference

Conference Location: Phoenix, AZ, USA Conference Date: 19941002-19941006

E.I. Conference No.: 42297

Source: American Society of Mechanical Engineers (Paper) 1994. ASME, New York, NY, USA. p 1-7 94-JPGC-PWR-55

Publication Year: 1994

CODEN: ASMSA4 ISSN: 0402-1215

Language: English

...Abstract: the decision to add to or upgrade their systems. This paper discusses the benefits and **costs**, direct and indirect, of continuous performance monitoring through experiences of **Black & Veatch** 's (B&V) existing clients. Benefits to heat rate, operations, and maintenance are discussed. Initial capital investment **costs**, instrument

upgrades/maintenance, and labor effort required are also included. In addition, intangible benefits of...

Descriptors: Online systems; Monitoring; **Costs** ; Performance; Calculations; Operations research; Maintenance; Information management; User interfaces; Database systems

Identifiers: Performance monitoring systems; Heat rate; **Coal** fueled plant; Plant operations

17/3,K/90 (Item 5 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

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03553797 E.I. Monthly No: EI9302014163

Title: Coal Quality Expert. Introduction to the Acid Rain Advisor.

Author: Harrison, C. D.; Stallard, G. S.

Corporate Source: CO Inc, Homer City, PA, USA

Source: Mining Engineering (Littleton, Colorado) v 44 n 10 Oct 1992 p 1257-1261

Publication Year: 1992

CODEN: MIENAB ISSN: 0026-5187

Language: English

Title: Coal Quality Expert. Introduction to the Acid Rain Advisor.

Abstract: The 1990 Clean Air Act Amendments specifiiy national objectives for reducing sulfur dioxide emissions from **coal** -fired power plants. System-wide reductions can be achieved by combining various emissions control technologies...

...allowances, or compliance credits, that can be purchased, sold or traded. As part of the **Coal Quality Expert** development project funded by the US Department of Energy and the Electric Power Research Institute (EPRI), **Black & Veatch** has developed an interactive computer tool, the Acid Rain Advisor (ARA). Through this program, integrated, system-wide compliance plans are generated by comparing the **costs** and emissions reduction benefits of emissions allowances and various SO//2-control technologies (**coal** cleaning, fuel switching, scrubber retrofits, etc.) (Author abstract)

Descriptors: AIR POLLUTION; MATHEMATICAL MODELS; AIR POLLUTION CONTROL; **COAL** PREPARATION; ACID RAIN; SULFUR DIOXIDE; **COSTS**

Identifiers: **COAL** QUALITY; ACID RAIN ADVISOR; INTERACTIVE COMPUTER TOOLS; **COAL** CLEANING; FUEL SWITCHING; SCRUBBER RETROFITS

17/3,K/91 (Item 6 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

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03458055 E.I. Monthly No: EIM9207-036854

Title: Application of neutron-gamma sirolog to estimate iron content in coal and implications for estimating ash fusion characteristics.

Author: Biggs, M. S.

Corporate Source: Callide Coalfields Pty Ltd

Conference Title: Queensland Coal Symposium

Conference Location: Brisbane, Aust Conference Date: 19910829

E.I. Conference No.: 16286

Source: Queensland Coal Symposium Queensland Coal Symp. Publ by Australasian Inst of Mining & Metallurgy, Parkville, Aust. p 187-198

Publication Year: 1991

ISBN: 0-949106-63-1

Language: English

...Abstract: basis, and more cost competitively than current laboratory techniques allow. This has implications for steaming **coal** operators who must include ash fusion temperature determinations as part of daily **coal quality** monitoring of raw **product** feed to domestic **power** stations. Further trials of the technique are continuing. (Author abstract) 15 Refs.

17/3,K/92 (Item 7 from file: 8)

DIALOG(R)File 8:EI Compendex(R)

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03402460 E.I. Monthly No: EI9204047489

Title: Efficient use of energy in glass melting and conditioning.

Author: Scully, Peter F.

Source: Glass International Mar 1991 p 31, 33

Publication Year: 1991

CODEN: GLINDN ISSN: 0143-7836

Language: English

...Abstract: distinct categories: general glass melting in regions where there is a supply of low cost **electrical power** due to the presence of hydro- **electric**, nuclear or **coal**-fired **power** stations; and technical glass melting, where energy **costs** are outweighed by the gains in **product quality**, raw material **costs** and environmental benefits as a result of the retention of expensive volatile materials.

17/3,K/93 (Item 8 from file: 8)

DIALOG(R)File 8:EI Compendex(R)

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03342953 E.I. Monthly No: EI9112147533

Title: Competitive costs of foreign and U.S. coal in North Atlantic markets.

Author: Schneid, Robert J.; Torries, Thomas F.

Corporate Source: Costain Coal Co, USA

Source: Mining Science & Technology v 13 n 1 Jul 1991 p 89-104

Publication Year: 1991

CODEN: MSTEEV ISSN: 0167-9031

Language: English

...Abstract: in the coastal areas of eastern United States and Europe are determined on a comparative **cost** basis and analyzed. **Costs** considered include **coal production** and transportation **costs** and **cost** to the **electric** utilities, determined by differences in **coal quality** (i.e., heat, ash and sulfur content). Estimated costs and shadow prices are determined and...

17/3,K/94 (Item 9 from file: 8)

DIALOG(R)File 8:EI Compendex(R)

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03302235 E.I. Monthly No: EIM9109-043517

Title: User-friendly coal value model for thermal coals.

Author: Maher, T. P.; Smith, M. Y.

Corporate Source: Joint Coal Board

Conference Title: Coal Handling and Utilization Conference 1990

Conference Location: Sydney, Aust Conference Date: 19900619
E.I. Conference No.: 13585
Source: National Conference Publication - Institution of Engineers,
Australia n 90 pt 3. Publ by IE Aust, Barton, Aust. p 259-263
Publication Year: 1990
CODEN: NPIEDX ISSN: 0313-6922
Language: English

...Abstract: on a real cost of energy basis at the inlet to the pulverisers of the **power** station. It also presents coal **properties** and calculated technical parameters for comparison with those of other **coals** and the design fuel specification of the plant. The model can **produce** similar data for blends of **coals** in any proportions. It can also be used, if desired, to set up a thermal **coal** data base. The model is designed to be run on personal computers by staff who...

17/3,K/95 (Item 10 from file: 8)
DIALOG(R)File 8: Ei Compendex(R)
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02904099 E.I. Monthly No: EIM9005-020360
Title: Economics of fine coal preparation.
Author: Harris, Richard C.
Corporate Source: Valley Camp Coal Co, Oil City, PA, USA
Conference Title: Industrial Practice of Fine Coal Processing
Conference Location: Somerset, PA, USA Conference Date: 19880925
E.I. Conference No.: 12807
Source: Ind Pract Fine Coal Process. Publ by Soc of Mining Engineers of AIME, Littleton, CO, USA. p 29-33
Publication Year: 1988
ISBN: 0-87335-078-2
Language: English

...Abstract: cleaning offers particular benefits in some situations to tailor the preparation plant facility to boiler **characteristics**. Improved communications and methodologies need to develop to allow the **coal producer** and the **coal** user to clean **coal** to the degree that results in the lowest overall **cost** for **electrical generation**. (Author abstract)

17/3,K/96 (Item 11 from file: 8)
DIALOG(R)File 8: Ei Compendex(R)
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02792078 E.I. Monthly No: EIM8909-030435
Title: Efficiency of bituminous coal combustion in bubbling atmospheric pressure fluidized beds.
Author: Walsh, P. M.
Corporate Source: MIT, Cambridge, MA, USA
Conference Title: 1989 International Conference on Fluidized Bed Combustion: FBC - Technology for Today
Conference Location: San Francisco, CA, USA Conference Date: 19890430
E.I. Conference No.: 12318
Source: 1989 Int Conf Fluid Bed Combust: FBC - Technol Today Vol 2. Publ by American Soc of Mechanical Engineers (ASME), New York, NY, USA. p 765-773
Publication Year: 1989
ISBN: 0-7918-0308-2
Language: English

Abstract: With wider use of fluidized bed-based boilers in **electric power generation**, improvement of combustion efficiency is expected to receive more attention. A method for relating combustibles loss to **coal properties**, boiler design, and **operating** conditions is needed in order to make quantitative estimates of the **costs** of improving carbon conversion. A **model** for carbon combustion was constructed by combining quantitative descriptions of the processes described. The results...

17/3,K/97 (Item 12 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

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02317844 E.I. Monthly No: EI8710099926

Title: COAL QUALITY ENGINEERING AIDS PURCHASING.

Author: Mancini, Rick; Hopkins, B. W.; Hodde, James

Corporate Source: New York State Electric & Gas Co, USA

Source: Power Engineering (Barrington, Illinois) v 91 n 6 Jun 1987 p 16-20

Publication Year: 1987

CODEN: POENAI ISSN: 0032-5961

Language: ENGLISH

...Abstract: a tool called Coal Quality Engineering Analysis (CQEA) to evaluate the cost impacts of coal **quality** on its **power** plants. It allows quantification of the effect of **coal quality** on plant operating costs and has become an important factor in **coal** purchasing. In CQEA, **generating** station engineering data are combined with **coal** analysis data in a workable package for fuel evaluations, engineering, and economic analyses.

17/3,K/98 (Item 13 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

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02073337 E.I. Monthly No: EIM8602-010673

Title: NATIONAL ENGINEERING CONFERENCE: THE COMMUNITY AND TECHNOLOGY - GROWING TOGETHER THROUGH ENGINEERING, PREPRINTS OF PAPERS.

Author: Anon

Conference Title: National Engineering Conference: The Community and Technology - Growing Together Through Engineering, Preprints of Papers.

Conference Location: Melbourne, Aust Conference Date: 19850302

E.I. Conference No.: 07458

Source: National Conference Publication - Institution of Engineers, Australia n 85/1. Publ by Inst of Engineers, Australia, Barton, Aust 498p

Publication Year: 1985

CODEN: NPIEDX ISSN: 0313-6922 ISBN: 0-85825-274-0

Language: English

...Abstract: industries, namely: expert systems in building design, microwave engineering, mobile radio systems, remotely piloted vehicles, **coal** transportation, grain **production**, nuclear **power** plants, **quality** control, plant maintenance, research strategies, project management, information systems; (6) engineering of national objectives such...

17/3,K/99 (Item 14 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

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01880436 E.I. Monthly No: EIM8507-039428

Title: FOR LOWER POWER COSTS, USE HIGH QUALITY COAL.

Author: Corder, William C.

Corporate Source: Consolidation Coal Co, USA

Conference Title: 3rd European Coal Utilization Conference, COALTECH. (Volume 1: Combustion.)

Conference Location: Amsterdam, Neth Conference Date: 19831011

E.I. Conference No.: 06238

Source: Publ by Industrial Presentations Group, Rotterdam, Neth p 221-240

Publication Year: 1983

Language: English

...Abstract: drawing attention to how various quality parameters influence the cycle. Case histories where improved coal **quality** has improved economics are presented. The remarks are confined to **coals** in pulverized form. The paper discusses a mathematical **model** which predicts the influence of **coal quality** on bus-bar **power generation costs**. Results are reported which apply to a European situation. 3 refs.

17/3,K/100 (Item 15 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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01872955 E.I. Monthly No: EIM8506-030207

Title: INTERMOUNTAIN POWER PROJECT SEISMIC CRITERIA.

Author: McBean, Robert P.; Escalante, Luis E.; Shively, Arthur W.

Corporate Source: Black & Veatch Consulting Engineers, Structural Analysis Group, Kansas City, MO, USA

Conference Title: Preprints - 1982 ASCE National Convention.

Conference Location: Las Vegas, NV, USA Conference Date: 19820426

E.I. Conference No.: 06462

Source: Preprints - ASCE Convention & Exposition Publ by ASCE, New York, NY, USA 82-023, 13p

Publication Year: 1982

CODEN: ACEXE7

Language: English

Abstract: Four 750 MWe **coal** fueled generating units of the Intermountain Power Project will supply electric power to large areas...

...detailed seismic criteria, numerous discussions were held involving the Los Angeles Department of Water & Power, **Black & Veatch**, and key suppliers. This paper describes the resulting criteria for seismic design of structures, equipment, and components. The criteria are intended to provide a practical, **cost**-effective approach to meeting plant performance objectives during and following an earthquake. 12 refs.

?

17/3,K/700 (Item 170 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications
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0432014

FLA. PSC STAFF: 832-MW COAL -FIRED PROJECT APPROVAL SHOULD BE DENIED

Utility Environment October 16, 1992; Pg 14

Journal Code: UER ISSN: 1503-9379

Section Heading: State Regulations

Word Count: 417 *Full text available in Formats 5, 7 and 9*

FLA. PSC STAFF: 832-MW COAL -FIRED PROJECT APPROVAL SHOULD BE DENIED

TEXT:

... Service Commission staff has recommended that a Determination of Need for an 832-MW pulverized **coal** plant proposed by Cypress Energy be rejected, pleasing environmentalists who had argued that plant emissions...

... staff report on Cypress, which is a joint venture between NRG Energy of Minneapolis and **Black & Veatch** Power Development Corp. of Kansas City, will not become final unless the commission votes to...

...to reject the project because "FP&L has not demonstrated that Cypress is the most **cost** -effective alternative to meet the need (for 800-plus MW) in 1998."

The recommendation noted...

... Cypress appeared to be able to provide the same amount of power at a lower **cost** . DER had indicated that it would prefer either of the two gas projects over the...

... objected to FP&L's selection of Cypress based on fuel forecasts, which indicated the **price** of natural gas will rise at a much faster rate than **coal** during the life of the project.

Instead, the primary staff recommendation asked the commission to...

...proposals for a natural gas-fired combined cycle unit, which could later be switched to **coal** gasification if the **price** of natural gas rises too high.

17/3,K/701 (Item 171 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications
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0429663

Florida casts doubts on coal -fired projects

Engineering News-Record November 2, 1992; Pg 14; Vol. 229, No. 18

Journal Code: ENR ISSN: 0013-807X

Section Heading: NEWS

Word Count: 346 *Full text available in Formats 5, 7 and 9*

Florida casts doubts on coal -fired projects

TEXT:

Two recent actions at the state level make it appear doubtful that construction of traditional **coal** -fired power- plants will be approved in Florida. Demand growth there indicates a need for...

... Florida Power & Light Co. and developer Cypress Energy Inc. to build an 832-Mw pulverized **coal** -fired plant. The rejection is based on economic grounds.

Cypress is a joint venture of nrg Energy Inc., Minneapolis, and **Black & Veatch** Power Development Corp., Kansas City, Mo. The proposed project near Okeechobee would have been the...

...and make recommendations for changing it. That action, in part, is aimed at including the **cost** of environmental "externalities" in providing new generating capacity, which would affect mostly traditional **coal** -burning plants.

Externalities are impacts not related directly to construction of a plant itself, such...

...as on any benefits.

At the same time, PSC is taking the position that traditional **coal** -fired plants are not the "least- **cost** alternative." And DER is generally opposed to them for environmental reasons.

The Cypress proposal was...

... same approximate size that would initially burn natural gas and can be converted to integrated **coal** gasification when that becomes **cost** competitive.

17/3,K/702 (Item 172 from file: 624)

DIALOG(R)File 624:McGraw-Hill Publications

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0424827

ENVIRONMENTALISTS CHARGE 832-MW PROJECT JEOPARDIZES FLA. EVERGLADES

Utility Environment September 18, 1992; Pg 5

Journal Code: UER ISSN: 1503-9379

Section Heading: Emissions

Word Count: 348 *Full text available in Formats 5, 7 and 9*

TEXT:

... Florida Public Service Commission, the Legal Environmental Assistance Foundation (LEAF) charges that an 832-MW, **coal** -fired independent power project planned by Cypress Energy will add to the environmental woes of...

...Legal Studies in New York, said that the project would not be considered the most **cost** -efficient alternative if the **cost** of environmental externalities were taken into consideration.

Florida Power & Light petitioned the PSC for a...

... for the Cypress project, which is a joint venture between NRG Energy of Minneapolis and **Black & Veatch** Power Development Corp. of Kansas City. The facility would begin to deliver power to FP...
...1998.

The plant, which is on the north side of Lake Okeechobee, will use pulverized- **coal** technology. The lake is the primary source of water for the Florida Everglades, which is...

...power (UER, 21 Aug, 11).

Although LEAF considers natural gas considerably more environmentally friendly than **coal**, the foundation said the power would not be needed if FP&L were to increase...

17/3,K/703 (Item 173 from file: 624)

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0417324

**FLORIDA ENVIRONMENTAL AGENCY INTERVENES IN NEED DETERMINATION FOR FP&L
COAL UNIT**

Utility Environment August 21, 1992; Pg 11

Journal Code: UER ISSN: 1503-9379

Section Heading: State Regulation

Word Count: 461 *Full text available in Formats 5, 7 and 9*

**FLORIDA ENVIRONMENTAL AGENCY INTERVENES IN NEED DETERMINATION FOR FP&L
COAL UNIT**

TEXT:

...has intervened in a Florida Power & Light Determination of Need case for an 832-MW **coal** plant, contending that the Public Service Commission should not approve any specific project to supply...

...s decision to intervene is that the agency has strong reservations about the use of **coal**. Owen said DER Secretary Carol Browner "is not necessarily opposed to **coal** plants--she has certified two--she just looks at them very carefully."

FP&L and Cypress Energy, a joint venture between NRG Energy of Minneapolis and **Black & Veatch** Power Development Corp. of Kansas City, have petitioned the PSC to approve the 832-MW pulverized **coal** unit, which would be built north of Lake Okeechobee (Docket No. 920520-EQ). The large ...

... have intervened in the case and said they can build gas-fired facilities, which would **cost** less and would be more environmentally friendly.

In Florida, projects greater than 75 MW that...

...the new generation is needed and, if so, whether the proposed project is the least- **cost** alternative. DER has never before intervened in a need determination at the PSC.

The two...

17/3,K/704 (Item 174 from file: 624)

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0411440

**Vision of next century emerges: Coal -burning technology may prevail, but
gas-fired plants hold sway now**

Engineering News-Record August 31, 1992; Pg 22; Vol. 229, No. 9

Journal Code: ENR ISSN: 0013-807X

Section Heading: COVER STORY

Word Count: 1,650 *Full text available in Formats 5, 7 and 9*

BYLINE:

Allen Soast, with bureau reports

: Coal -burning technology may prevail, but gas-fired plants hold sway now

TEXT:

... what may be a major cycle of new construction. Many foresee an increasing dominance of **coal** combustion.

According to Westinghouse Electric Corp., by 2000 one-quarter of all fossil-fuel powerplants...

...the century and 200,000 in the decade after that.

Natural gas, plentiful and reasonably **priced**, now is the fuel of choice for new plants in the U.S. and many...

...combustion turbines.

But at a recent stock analyst conference, P.J. Adam, vice chairman of **Black & Veatch**, Kansas City, said that the future is in **coal**. "New gas wells cannot be drilled at today's **prices**. When **price** goes up, that's when **coal** comes back in. At some point in the '90s, we expect **coal** to reemerge as the most economical fuel for baseload and many intermediate load applications."

He believes that within 15 years, present **coal** combustion technology will be replaced by combined-cycle plants burning gasified **coal**, and pressurized fluidized-bed **coal**-combustion plants able to meet the stiff emissions regulations of the Clean Air Act.

But...

...having to purchase replacement power--a greater expense than repairs.

The National Research Center for **Coal** and Energy at West Virginia University, Morgantown, is studying computer simulations of conditions inside a...

... current planning looks toward "more smaller generating units located closer to load to avoid transmission **costs**. The days of the central station are gone." Stewart sees new plants as clean **coal**-burning 200 to 300-Mw installations.

Those who do consider new baseload capacity in the...

... new units to a vague 2010 or so. Jack Siegel, DOE deputy assistant secretary for **coal** technology, says, "We would like to see nuclear play an important role, but clearly it..."

...I don't see the demand and it's an emotional matter," says Iotti.

"The **cost** must be two or three times less and we have to drive down operation and maintenance **costs** dramatically. They keep rising," he says. "We have to stick to the program; in the past we have not."

The Tennessee Valley Authority is still the nation's largest **coal**

-burning utility, but chairman John Waters likes the nuclear option. At present the agency expects...

... plant, which will be needed on line in about 2005, will be nuclear instead of **coal** fired. That is based on estimates of better economics, and it assumes that in the...

...is keeping its options open. It has done a good deal of work on clean **coal** and advanced boiler technologies and has built a demonstration-scale pressurized fluidized-bed combustion unit...

... to increase output per unit weight with its power generating turbine researchers' aim to burn **coal** more cleanly and efficiently.

However, so-called aeroderived power turbines are limited to applications where...dollar a little further," he says.

Regaining reign. DOE's Siegel says that if new **coal** -fired plants come on line in the late 1990s or early next century, they will...

... fast because most new natural gas combustion turbine plants are now designed to convert to **coal** gas "at such time as the **prices** of gas and **coal** intersect," says Donald Lucas, an Ebasco marketing vice president. "That is almost across the board."

The technology uses **coal** that is partially oxidized to produce gas that is then cleaned. The process separates ash...

... planned for Tampa Electric. Co. in Florida. The project, partially financed under DOE's clean **coal** program, is to be operational in 1996. Two repowering projects using similar technology also are...

... technologies at Westinghouse Electric Corp.'s power generation unit in Orlando, Fla., sees a direct **coal** -fired process for driving combustion turbines after 2005. In a first step of that process, very fine pulverized **coal** is fed into a combustor and gas is separated from ash, which collects at the...

... envisions adding ceramic heat exchangers to that system so hot air rather than the corrosive **coal** gas itself will drive the turbines. Westinghouse is competing for a DOE contract to complete...

... Researchers also are optimistic about the commercial prospects for magnetohydrodynamic plants that promise to convert **coal** into electricity very efficiently and cleanly.

An MHD plant makes electricity in two ways, says...

...group in Reading, Pa., which is assisting DOE in MHD and development.

A mix of **coal** and potassium salt is burned in a combustor at temperatures of more than 4,600...

SPECIAL FEATURE:

Photograph: Combustion turbines now dominate the U.S. market, but an increase in gas **prices** could eliminate their competitive edge before the end of the century.

Photograph: Fluidized bed now is the choice for advanced **coal** combustion.

Photograph: Hot **coal** gas experiments include test of ceramic filters and a sulfur cleanup system.

Photograph: Magnetohydrodynamics prototype combustor aims for high efficiency in converting **coal** to power.

Photograph: Fuel cells may play major role in the power mix.

17/3,K/705 (Item 175 from file: 624)
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0407845

EdF's US buys hit tighter market

Coal Week International August 4, 1992; Pg 3; Vol. 13, No. 31
Journal Code: CWI ISSN: 0149-578X
Section Heading: Market Watch
Word Count: 205 *Full text available in Formats 5, 7 and 9*

TEXT:

A number of sources reported that **Electricite** de France has quietly reentered the US market for higher **quality coals** . With ample supplies of low- **cost** , high-ash **products** from South Africa, EdF has changed its US specifications to 12,000 Btu/lb. and...

17/3,K/706 (Item 176 from file: 624)
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0407779

ARK/CSW AND FALCON SEEK TO REPLACE CYPRESS FOR 832-MW FLORIDA PROJECT

Independent Power Report July 31, 1992; Pg 5
Journal Code: COG ISSN: 1049-0744
Section Heading: Markets
Word Count: 613 *Full text available in Formats 5, 7 and 9*

TEXT:

... CSW Energy have told the Florida Public Service Commission they can supply at a lower **cost** all or a portion of the 832 MW that Florida Power & Light has agreed to...

... the Cypress need-determination case are both gas-fired cogeneration plants. Cypress' proposal uses pulverized **coal** .

Cypress, a joint venture between NRG Energy of Minneapolis and **Black & Veatch** Power Development Corp. of Kansas City, Mo., asked the PSC to approve its contract with...

...makes for power from Cypress. Payments to QFs are recovered through fuel charges but the **costs** for utility-owned generating units are recovered only after future rate cases. The PSC staff...

...second is still pending (Case No. 79580).

Tessem said Falcon's project would be more **cost** -effective than Cypress' plan, and although the unit would not meet the entire need indicated...

17/3,K/707 (Item 177 from file: 624)
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0389621

FLA. BOARD REVOKES PERMIT FOR 250-MW INDEPENDENT PROJECT IN PROPOSED ORDER

Utility Environment May 15, 1992; Pg 11

Journal Code: UER ISSN: 1503-9379

Section Heading: State Regulation

Word Count: 795 *Full text available in Formats 5, 7 and 9*

TEXT:

... according to Richard Donelan, the DER siting attorney who handled the case.

Construction on the **coal** -fired project was about half complete when the proposed order was approved May 5.

Officials...

... Marubeni America Corp., Marubeni U.K. P.L.C., Ahlstrom Capital Corp., Pritchard Corp., and **Costain Coal Co. Costain** has a long-term contract to supply **coal** for the plant.

Black & Veatch Engineers/Architects, Pyropower Corp., and National Power Development Inc., which is an affiliate of Marubeni...

17/3,K/708 (Item 178 from file: 624)
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0385474

11 BIDDERS SUEMIT PROPOSALS TOTALING ABOUT 4,500 MW IN INDIANAPOLIS P&L RFP

Independent Power Report May 8, 1992; Pg 4

Journal Code: COG ISSN: 1049-0744

Section Heading: MARKETS

Word Count: 337 *Full text available in Formats 5, 7 and 9*

TEXT:

...century.

IP&L project manager Steven Powell said the proposals included bids for gas- and **coal** -fired projects. The identity of the bidders and the number of bids based on each...

... turnkey bids submitted in February for construction of a 600-MW to 700-MW baseload **coal** plant that could be in operation by 1998.

The utility also plans to build 160...

...and Duke/Fluor Daniel submitted two of the turnkey bids. Other proposals came from ABB/ **Black & Veatch** /Peter Kiewit and Morrison-Knudsen Engineers/Sargent & Lundy/Foster Wheeler/Westinghouse.

Powell said IP&L...

...eliminated or surviving.

The evaluation process for independent power is weighted about 40% on project **cost** , the single most important criteria, according to Powell. Other factors include project viability, experience and...

17/3,K/709 (Item 179 from file: 624)

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0383788

Half-built project is halted

Engineering News-Record May 18, 1992; Pg 18; Vol. 228, No. 20

Journal Code: ENR ISSN: 0013-807X

Section Heading: News

Word Count: 321 *Full text available in Formats 5, 7 and 9*

TEXT:

... taken because of "material misrepresentation" of fact in the permit application for the 250-Mw **coal** -fired plant near Jacksonville.

AES Cedar Bay, the local operating company, can appeal to the...

... A \$300-million turnkey contract was awarded early last year to a joint venture including **Black & Veatch** , Kansas City; Pyropower Corp., San Diego; and National Power Development Inc., Kansas City, which is...

... Marubeni Corp. of Japan. Installed equipment and other expenses account for the rest of the **cost** .

17/3,K/710 (Item 180 from file: 624)

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0382002

Projects clear last hurdles

Engineering News-Record May 11, 1992; Pg 31; Vol. 228, No. 19

Journal Code: ENR ISSN: 0013-807X

Section Heading: News

Word Count: 243 *Full text available in Formats 5, 7 and 9*

TEXT:

...s decision to let stand a state air permit for the utility's 786-Mw, **coal** -fired project in Clover, Va. (ENR 2/10 p. 20) The law center cites the...

... Corp., Pittsburgh; ABB Combustion Engineering Systems, Stamford, Conn.; H.B. Zachry Co., San Antonio; and **Black & Veatch** , Kansas City, Mo.

Also, EPA dismissed appeals by two individuals to block a state air...

... said "frivolous" appeals delayed financing and construction work on the project for several months "and **cost** us \$400,000." He says the firm now plans to begin building the plant in...

17/3,K/711 (Item 181 from file: 624)

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0374114

FP&L SELECTS 832-MW INDEPENDENT POWER PLANT DEVELOPED BY NRG/ BLACK & VEATCH

Electric Utility Week March 16, 1992; Pg 7

Journal Code: EUW ISSN: 0046-1695

Section Heading: Planning

Word Count: 380 *Full text available in Formats 5, 7 and 9*

FP&L SELECTS 832-MW INDEPENDENT POWER PLANT DEVELOPED BY NRG/ BLACK & VEATCH

TEXT:

...to purchase electricity from an 832-MW independent power project planned by NRG Energy and **Black & Veatch** Power Development Corp. (BVPDC).

NRG Energy, based in Minneapolis, Minn., is a unit of Northern States Power, while BVPDC of Kansas City, Kan., is a subsidiary of **Black & Veatch**.

The project, Cypress Energy, will be built about 10 miles northwest of the city of...

...standard offers within the next few months.

Cypress will have two generating units using pulverized **coal** technology, equipped with "state-of-the-art," but unspecified, air pollution controls.

The PSC must...

...with FP&L, as well as a certificate of need for the project, which will **cost** in excess of \$1.25-billion.

The developers also need to apply to the Florida...

...avoided unit for the Cypress project was the same 907-MW integrated combined-cycle (IGCC) **coal** gasification unit used for a recent standard offer. While fuel payments are calculated on an...

17/3,K/712 (Item 182 from file: 624)

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0373864

FP&L PICKS 832-MW NRG/ BLACK & VEATCH PROJECT FOR FILLING 900-MW ALLOCATION

Independent Power Report March 13, 1992; Pg 3

Journal Code: COG ISSN: 1049-0744

Section Heading: Markets

Word Count: 483 *Full text available in Formats 5, 7 and 9*

FP&L PICKS 832-MW NRG/ BLACK & VEATCH PROJECT FOR FILLING 900-MW ALLOCATION

TEXT:

ida Power & Light has selected the 832-MW project proposed by NRG Energy and **Black0 & Veatch** Power Development Corp. (BVPDC) to fill a 900-MW need FP&L identified in 1991...

... unit of Northern States Power, while BVPDC of Kansas City, Kan., is a subsidiary of **Black & Veatch**.

Cypress will have two generating units using pulverized **coal** technology, equipped with "state-of-the-art," but unspecified, air pollution controls.

The Florida Public...

...with FP&L, as well as a certificate of need for the project, which will **cost** in excess of \$1.25-billion.

The developers also need to apply to the Florida...

... avoided unit for the Cypress project was the same 907-MW integrated combined-cycle (IGCC) **coal** gasification unit used for the recent standard offer. While fuel payments are calculated on an...

17/3,K/713 (Item 183 from file: 624)
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0372597

INDIANAPOLIS P&L GETS 4 TURNKEY BIDS TO BUILD 600-MW BASELOAD COAL PLANT

Electric Utility Week March 9, 1992; Pg 5

Journal Code: EUW

ISSN: 0046-1695

Section Heading: Planning

Word Count: 473 *Full text available in Formats 5, 7 and 9*

INDIANAPOLIS P&L GETS 4 TURNKEY BIDS TO BUILD 600-MW BASELOAD COAL PLANT

TEXT:

... Light has received four bids for construction of a 600-MW to 700-MW baseload **coal** plant that could be in operation in 1998 (EUW, 23 Sept '91, 17).

The utility...

...Constructors and Duke/Fluor Daniel submitted two of the bids.

The others came from ABB/ **Black & Veatch** /Peter Kiewit and Morrison-Knudsen Engineers/Sargent & Lundy/Foster Wheeler/Westinghouse. "The bids were all competitive" in terms of **price**, Burr said, declining, however, to disclose amounts. IP&L has not released **cost** estimates for the project.

IP&L sent bid invitations in October to 18 companies for a turnkey baseload **coal** project. Burr said the four bids were "for the total construction package," but do not...

...project, could come by July 1993.

The evaluation process is weighted about 40% on project **cost**, the single most important criteria, according to Burr. Other factors, including reliability, experience and environmental...

... sure they put their 'heavy hitters' on this project." Plans for an IP&L baseload **coal** plant have been in the works for months, but the time frame has changed several...

...in the East Central Area Reliability Coordination Agreement (ECAR) since the 1,300-MW Zimmer **coal** plant entered service in Ohio in 1991.

IP&L's baseload plant bids will be...

17/3,K/714 (Item 184 from file: 624)
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0372449

NRG, BLACK & VEATCH PLAN 832-MW COAL PLANT IN FLORIDA
Coal Week March 9, 1992; Pg 2; Vol. 18, No. 10
Journal Code: COW ISSN: 0149-578X
Section Heading: INDUSTRY
Word Count: 193 *Full text available in Formats 5, 7 and 9*

NRG, BLACK & VEATCH PLAN 832-MW COAL PLANT IN FLORIDA

TEXT:

An 832-mw **coal** -fired plant offered by a joint venture between NRG Energy and **Black & Veatch** Power Development Corp. (BVPDC) was selected by Florida Power & Light Co. to help meet the utility's electric demand beginning in 1997.

The pulverized- **coal** project, Cypress Energy, will be constructed near the city of Okeechobee at a **cost** estimated to be in excess of \$1.25 billion. The Florida Public Service Commission must...

... financing, the independent power project must secure a primary and a back-up source of **coal** for the plant, said Carl Carreca, vice president of business development for NRG. Lehman Bros...

17/3,K/715 (Item 185 from file: 624)
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0367458

Plant would set a record
Engineering News-Record March 9, 1992; Pg 14; Vol. 228, No. 10
Journal Code: ENR ISSN: 0013-807X
Section Heading: News
Word Count: 316 *Full text available in Formats 5, 7 and 9*

TEXT:

A joint venture of **Black & Veatch** Power Development Corp., Kansas City, Mo., and NRG Energy Inc., an affiliate of Northern States...

...country's largest independent powerplant near Okeechobee, Fla.

The 800-Mw plant will have two **coal** -fired units and **cost** more than \$1 billion. Florida Power & Light Co. has signed a 30-year power purchase...

...known as Cypress Energy Partners. NRG is the managing general partner of the venture, and **Black & Veatch** is responsible for permitting, engineering procurement and design supervision.

Steven M. Day, vice president for licensing at **Black & Veatch** Power

and Development, says it will take about 20 months to secure all the necessary...

...is to produce and sell power to FP&L for less than what it would **cost** the utility to generate the power and still make money. "We'll do that using..."

17/3,K/716 (Item 186 from file: 624)
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0357740

FUEL-SWITCHING EMERGES AS STRATEGY OF CHOICE AT MANY MIDWEST UTILITIES

Utility Environment May 31, 1991; Pg 11

Journal Code: UER ISSN: 1503-9379

Section Heading: Strategies

Word Count: 1,314 *Full text available in Formats 5, 7 and 9*

TEXT:

Switching to low-sulfur **coal** is becoming the strategy of choice for a number of midwestern utilities affected under Phase...

...it eliminates expensive scrubber retrofits and most have relatively easy access to western low-sulfur **coal** reserves.

Additionally, switching is politically simpler for some utilities because their states do not produce as much high-sulfur **coal** as Illinois, Indiana and Ohio, where of thousands of miners stand to lose their jobs if utilities opt for western **coal**.

Empire District Electric switched its 235-MW, Asbury Unit-1 in Joplin, Mo., to Powder River-basin **coal** last year, which brings it into compliance with Phase One, said Bob Bromley, the utility...

...including scrubbers, Bromley said switching was the cheapest option..

"In fact, we reduced our fuel **costs** significantly, so we might have chosen it even without considering the Clean Air Act," he said. High-sulfur Missouri **coal** previously burned at Asbury was more expensive than Wyoming **coal**, Bromley said. Joplin is about 800 miles from the Powder River basin, which gives the company easy access to the low-sulfur reserves. Most of the **coal** burned in Missouri comes from Illinois and Kansas.

Empire's switch was easier than it might be for other utilities because its 20-year **coal** supply contract with Pittsburg & Midway **Coal** Mining Co., Englewood, Colo., had expired. "We didn't have to break a contract, like..."

... to fuel-switch its 459-MW Sibley Unit-3 for Phase One and is investigating **coal** suppliers, according to Dan Rembold, a senior production engineer. He said the utility currently burning 3.2% sulfur southern Illinois **coal** at Sibley and is looking at buying Powder River basin **coal**. Emissions at Sibley Unit-3 are running 5.6 lbs. SO2/mmBtu.

Rembold said the...

... is expected to fuel-switch its New Madrid Units 1-2 to Western low-sulfur **coal**. The units currently burn high-sulfur Peabody **Coal** from Illinois.

An Associated spokesman said one advantage to using Western low-sulfur reserves is that Peabody owns some western **coal** properties, so the utility would not have to change fuel suppliers.

Fuel-switching would be...

... at Associated's Thomas Hill Units 1-2. The plant currently burns 3.8% sulfur **coal** from a mine owned by the utility in Clifton Hill. The mine produces close to 85% of Missouri's **coal** --about 2.3-million tons per year--and employs about 400 people.

"We are very...

... at our compliance strategies accordingly," the spokesman said. One possibility is blending the high-sulfur **coal** with Western **coal**.

At least for the beginning of Phase One, the utility is considering using allowances at...

...mine plan, the spokesman said.

Thomas Hill Unit-3, which also burns Clifton Hill mine **coal**, was built in 1982 with wet limestone scrubber. Thomas Hill Unit-1 is 35 years ...

...scrubber retrofit.

Kansas City Power & Light fuel-switched its Montrose Units 1-3 to Wyoming **coal** about three years ago when supplies dwindled at a high-sulfur Peabody **Coal** mine in Missouri. The switch has cut Montrose SO2 emissions to 1 lb./mmBtu, a...

... says it will maintain for Phase One. The utility burns Illinois and Powder River-basin **coals** at its other plants.

Fuel-switching will free up some of the 25,680 allowances...

... Bennett said. "We may just wait and see what develops" and how the allowances are **priced** before coming to any conclusions.

The Kansas City Board of Public Utilities is burning a blend of high- and low-sulfur **coals** at the Quindaro Unit-2 and is already in compliance with Phase One, according to...

... Hollenback, director of environmental services. Since 1989, the utility has been mixing 0.4% sulfur **coal** from Wyoming's Hannah River basin with 2.8% sulfur **coal** from the Brushy Creek mine in southern Illinois, which it co-owns with the Sikeston...

...2 are running 2.5 lbs./mmBtu, the Phase-One requirement. The utility has hired **Black & Veatch** of Kansas City, Mo., to study emission allowance alternatives, demand-side management issues, load growth...

... High Bridge Unit-6 in Minnesota was fuel-switched in 1986 to low-sulfur Western **coal** and is in Phase-One compliance, said Patti Boyce, an associate environmental scientist ...activity (See story, this issue).

WEPCO recently signed a 15-year contract with Pittsburg & Midway **Coal** Mining Co. in Englewood, Colo., for two-million tons of low-sulfur **coal**

per year for its four-unit, 1,045-MW Oak Creek plant (UER, 17 May...
... Labadie Units 1-4 and Sioux Units 1-2. The company began using some
Western **coal** in its fuel mix in 1989 to cut emissions, but buys about
5.75 million...

... 75 million tons on the spot market from Western mines. Most of the
utility's **coal** contracts extend into the mid-1990s.

"All that we know for sure at this point...

17/3,K/717 (Item 187 from file: 624)

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0356364

DEVELOPER OF U.K. WASTE-TIRE PLANT EXPANDING TO OTHER PARTS OF EUROPE

Independent Power Report January 3, 1992; Pg 9

Journal Code: COG ISSN: 1049-0744

Section Heading: International Power

Word Count: 555 *Full text available in Formats 5, 7 and 9*

TEXT:

... the new rate will be constant, then through 1998 indexed to the U.K.
retail **price** index (IPR, 19 July, 12).

In England, the Elm Energy unit will sell 25 MW...

... months to build. A joint venture of London's Tarmac Construction and
power plant engineer **Black & Veatch** of Kansas City, Mo., was awarded
the construction contract last year.

Later in 1992, Evans...

... of the heating value of natural gas, the waste gas can be mixed with
powdered **coal** in an injection process using Japanese or German boiler
technology to create an efficient and low- **cost** power generation unit,
Adik said.

Development **costs** are estimated to be about two-thirds of a scrubbed
coal -fired unit, depending on geographic location. "The **cost** could be
as low as \$500/kW if a boiler is used, with higher **costs** if a
combined-cycle turbine generator is used," said Adik.

The units could be structured...

17/3,K/718 (Item 188 from file: 624)

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0327204

City plans alternative to its depleted aquifer

Engineering News-Record September 16, 1991; Pg 29; Vol. 227, No. 11

Journal Code: ENR ISSN: 0013-807X

Section Heading: News

Word Count: 356 *Full text available in Formats 5, 7 and 9*

TEXT:

...will begin advertising in February for two bids--one for constructing 28

miles of pipelines **costing** an estimated \$48 million, and another for building a pump station and two 5-million-gal reservoirs. The second job will **cost** about \$16 million. In April the district will begin soliciting bids for a treatment plant...

... The new treatment plant will have a filter containing a 6-ft layer of anthracite **coal** rather than a traditional shallow dual-media filter. The deep filter will **cost** \$4 million to \$5 million, at least \$250,000 more than a conventional one. But its depth will eliminate the need for sedimentation basins, **costing** from \$1.5 million to \$2 million, says James C. Hesby, senior project manager in the Concord, Calif., office of engineer **Black & Veatch**.

17/3,K/719 (Item 189 from file: 624)

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0324233

Virginia Power

Coal Week August 19, 1991; Pg 4; Vol. 17, No. 33
Journal Code: COW ISSN: 0149-578X
Section Heading: Marketwatch: Market Perspective
Word Count: 197 *Full text available in Formats 5, 7 and 9*

TEXT:

... it would remain a strong spot market player helped a bit and word from Consumers **Power** that it would buy 100,000 tons of spot **coal** in September fueled the optimism.

One **producer** said the **price** of his lowest **quality coals** had risen about \$3/t on the river market after the doldrums of earlier this...

17/3,K/720 (Item 190 from file: 624)

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0300692

ORLANDO TO SELL SHARES OF PLANNED 440-MW PLANT TO FMPA, KISSIMMEE

Electric Utility Week April 29, 1991; Pg 10
Journal Code: EUW ISSN: 0046-1695
Section Heading: Planning
Word Count: 589 *Full text available in Formats 5, 7 and 9*

TEXT:

... upgrades when it enters service in 1997, an OUC spokesman said. The architect/engineering firm **Black & Veatch** Inc. of Kansas City, Mo., has been selected for the plant.

OUC decided in December...

... the deal included a purchase of common facilities that would serve both units, such as **coal** handling and storage areas and cooling ponds. The \$38-million **price** --\$32-million for FMPA and \$6-million for KUA--is based on the book value...

17/3,K/721 (Item 191 from file: 624)

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0290318

MORGANTOWN ETC TO FUND CCT PROJECTS; DRAVO LIME, CLEMSON TO RECEIVE DOE FUNDS

Coal Week March 18, 1991; Pg 2; Vol. 17, No. 11

Journal Code: COW

ISSN: 0149-578X

Section Heading: Clean Coal

Word Count: 476 *Full text available in Formats 5, 7 and 9*

TEXT:

... According to Lawrence Golan, director of the SC Energy R&D Center, gas turbine-based **electrical generating** systems offer the potential to lower the **cost** of **electricity**, lessen environmental burdens, and increase the utilization of low **quality** indigenous fuels, particularly **coal**.

He added that gas turbine systems promote high energy efficiency and provide flexible cycle design...

17/3,K/722 (Item 192 from file: 624)

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0270900

ORLANDO MUNI REJECTS INDEPENDENT POWER BIDS; WILL BUILD 460-MW UNIT

Electric Utility Week December 24, 1990; Pg 7

Journal Code: EUW

ISSN: 0046-1695

Word Count: 323 *Full text available in Formats 5, 7 and 9*

TEXT:

... bids it received from non-utility generators, has decided to build its own 460-MW **coal**-fired generating plant.

The Florida municipal utility received 19 notices of intent to bid, representing...

...cycle plant in Brevard County proposed by PG&E-Bechtel Generating Co.; a 410-MW, **coal**-fired plant in Okeechobee County bid by NRG Energy Inc.; and a 440-MW, gas...

... Beck & Associates, which recommended that none of the projects be accepted.

The spokesman said the **cost** advantage of building the twin **coal** plant at the Stanton site stems from **coal** transportation, handling and storage facilities that already exist and would not have to be built.

The architect/engineering firm **Black & Veatch** Inc., of Kansas City, Mo., built Stanton-1 and has been selected for the new...

17/3,K/723 (Item 193 from file: 624)

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0270714

ORLANDO MUNI TO BUILD 460-MW UNIT; REJECTS PROPOSALS FROM INDEPENDENTS

Cogeneration Report December 21, 1990; Pg 3

Journal Code: COG ISSN: 1049-0744
Section Heading: Markets
Word Count: 436 *Full text available in Formats 5, 7 and 9*

TEXT:

... the bids it received from independent producers and instead will build its own 460-MW **coal** -fired generating plant.

Although the municipal utility received 19 notices of intent to bid, representing...

...cycle plant in Brevard County proposed by PG&E-Bechtel Generating Co.; a 410-MW, **coal** -fired plant in Okeechobee County bid by NRG Energy Inc.; and a 440-MW, gas...

... 181 points. However, R.W. Beck reported that on an estimated cumulative 25-year power **cost** compared to Stanton-2, the "nominal power **cost** " for all three proposals were at least 14.9% higher, while the "present value (1997 dollars) power **cost** " for all three was at least 19.2% higher.

The spokesman said the **cost** advantage of building the twin **coal** plant at the Stanton site stems from **coal** transportation, handling and storage facilities that already exist and would not have to be built.

The architectural/engineering firm of **Black & Veatch** Inc. of Kansas City, Mo., built Stanton-1 and has been selected for the new...

17/3,K/724 (Item 194 from file: 624)
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0252731

TVA scrubber retrofit could cost \$3 billion
Engineering News-Record October 25, 1990; Pg 15; Vol. 225, No. 17
Journal Code: ENR ISSN: 0013-807X
Section Heading: News
Word Count: 384 *Full text available in Formats 5, 7 and 9*

TVA scrubber retrofit could cost \$3 billion

TEXT:

... bidding. Firms that bid for the first contract are: Bechtel Group Inc., Burns & McDonnell Engineers, **Black & Veatch**, Stone & Webster Engineering Corp., Ebasco Services Inc., Gilbert/Commonwealth Inc. and Sargent & Lundy.

United is...

...the 1970s, but may have to build as many as 10 new units. With 59 **coal** -fired units in its system, its total clean air **costs** could reach \$3.3 billion by 2000. TVA will depend more on outside contractors for...
...is now preparing a request for bids to supply low-nitrogen oxide burners for two **coal** -fired units, aiming to spend about \$25,000 per megawatt to convert existing capacity. It is also studying use of combined **coal** and gas burning systems to lower NOx emissions, and it will begin test burns of low-sulfur **coals** to meet emissions reduction rules on plants that will not have scrubbers. ...

17/3,K/725 (Item 195 from file: 624)
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0232339

Maine

Engineering News-Record August 9, 1990; Pg 44; Vol. 225, No. 6
Journal Code: ENR ISSN: 0013-807X
Section Heading: Pulse: Plans
Word Count: 49 *Full text available in Formats 5, 7 and 9*

TEXT:

Black & Veatch, 8400 Ward Parkway, Kansas City, Mo. 64114, is engineer for 180-Mw **coal** -fired cogeneration powerplant located at Harriman Cove in Bucksport. Planned by Applied Energy Services, 1001 N. 19th St., Suite 2000, Arlington, Va. 22209. Total project **cost**, \$300 million. Further advancement pending local and state approvals.

17/3,K/726 (Item 196 from file: 624)
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0231403

Project is challenged on a number of counts

Engineering News-Record August 2, 1990; Pg 16; Vol. 225, No. 5
Journal Code: ENR ISSN: 0013-807X
Section Heading: News
Word Count: 235 *Full text available in Formats 5, 7 and 9*

TEXT:

A proposal to build a **coal** -fired cogeneration plant in Bucksport, Maine, has drawn opposition that is spreading far beyond the...

...paper mill and generate 180 Mw to be sold to one or more utilities. The **cost** is now estimated at \$309 million, says Christopher O'Brien, AES development manager. Preliminary design is under way by **Black & Veatch**, Kansas City, Mo. Construction is scheduled to start next spring.

The plan is challenged by...

17/3,K/727 (Item 197 from file: 624)
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0222577

ORLANDO TO WEIGH BUILDING 400-MW COAL PLANT AGAINST POWER-SALE BIDS

Electric Utility Week June 4, 1990; Pg 8
Journal Code: EUW ISSN: 0046-1695
Section Heading: Planning
Word Count: 332 *Full text available in Formats 5, 7 and 9*

ORLANDO TO WEIGH BUILDING 400-MW COAL PLANT AGAINST POWER-SALE BIDS

TEXT:

The Orlando, Fla., Utilities Commission (OUC) will either build a 400-MW **coal** -fired plant for service by 1997 or purchase the power from independent producers, according to...

... would begin in 1993 so that the facility would be in service by 1997. The **cost** of construction was estimated at between \$513-million and \$520-million. Architectural and engineering services have been awarded to **Black & Veatch** Inc., Kansas City, Mo.

Stanton-1, which went on line in May 1987, and began...
... a plant that would convert garbage to fuel pellets that could be burned in a **coal** furnace with some modification to the plant's design.

17/3,K/728 (Item 198 from file: 624)
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0220892

ORLANDO TO ISSUE 400-MW RFP; WILL COMPARE BIDS TO BUILDING COAL UNIT
Cogeneration Report June 1, 1990; Pg 3
Journal Code: COG ISSN: 1049-0744
Section Heading: Markets
Word Count: 428 *Full text available in Formats 5, 7 and 9*

ORLANDO TO ISSUE 400-MW RFP; WILL COMPARE BIDS TO BUILDING COAL UNIT

TEXT:

... proposals for 400 MW of independently-produced power as a possible alternative to building a **coal** -fired baseload unit, according to a spokesman for the municipal utility.

He said the inquiry...

... a plant that would convert garbage to fuel pellets that could be burned in a **coal** furnace with some modification to the plant's design.

"At the same time as we...
... Construction on Stanton-2 would begin sometime in 1993 with completion set for 1997. The **cost** of construction was estimated at between \$513-million and \$520-million. Architectural and engineering services for the project have been awarded to **Black & Veatch** Inc., Kansas City, Mo.

17/3,K/729 (Item 199 from file: 624)
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0217721

Utility will either build or buy
Engineering News-Record May 31, 1990; Pg 15; Vol. 224, No. 22x
Journal Code: ENR ISSN: 0013-807X
Section Heading: News
Word Count: 309 *Full text available in Formats 5, 7 and 9*

TEXT:

... The Orlando Utilities Commssion is now trying to decide whether it will build a second **coal** -fired generating plant or purchase an equal amount of power from independent producers.

A spokesman...

...building a plant to convert garbage to fuel pellets that could be burned in a **coal** furnace with some modification of the plant's design.

OUC may add a second plant...

...II would begin sometime in 1993, and it would be on line by 1997. Its **cost** is estimated at between \$513 million and \$520 million. **Black & Veatch** Inc., Kansas City, Mo., has been retained to provide architect-engineering services. ...

17/3,K/730 (Item 200 from file: 624)

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0208572

Details of Louisville Gas & Electric

Coal Week April 2, 1990; Pg 6; Vol. 16, No. 14
Journal Code: COW ISSN: 0149-578X
Section Heading: Market Watch: Recent Transactions
Word Count: 148 *Full text available in Formats 5, 7 and 9*

TEXT:

Details of Louisville Gas & **Electric** 's contract with Lafayette **Coal** for 4.1 million tons of **coal produced** by Vigo **Coal** out of Vigo's Indiana **properties** finally came to light last week. The contract signed in August 1989 became effective Jan...

17/3,K/731 (Item 201 from file: 624)

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0205145

Nova Scotia gets coal approval; plant must meet pollution goals

Coal Week International March 20, 1990; Pg 1; Vol. 11, No. 12
Journal Code: CWI ISSN: 0149-578X
Section Heading: Canada
Word Count: 526 *Full text available in Formats 5, 7 and 9*

TEXT:

... and all associated work was put at \$238 million. Mitsui Canada previously supplied the turbine **generators** for NS **Power** 's four 150-mw **coal** -burning units at Lingan in the 1970-85 period. Mitsui Canada are general contractors for...

... Sargent & Lundy of Chicago are responsible for engineering. The boilers will be supplied by Pyro **Power** of San Diego; turbine-generators by Toshiba of Tokyo. Nova Scotia Environmental Control Council heard...

... Intervenor concerns embraced what input area residents would have on plant operations, options to a **coal** -fired **generating** station, impact on air emissions and water **quality** , effects on the Cape Breton fishing industry, local beaches and recreational area.

A frequent intervenor...

17/3,K/732 (Item 202 from file: 624)

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0199459

DECKER MOVING WITH DEVELOPMENT OF 28-MW WOOD-FIRED UNIT IN MICH.

Cogeneration Report February 23, 1990; Pg 10

Journal Code: COG

ISSN: 8756-372X

Section Heading: New Projects

Word Count: 387 *Full text available in Formats 5, 7 and 9*

TEXT:

... will receive a capacity rate of 4.05 cents/kWh and a projected starting energy **price** of 2.17 cents/kWh for operation in 1992. The energy rate will be indexed to the **price** of **coal**. The facility has a three-year window for commercial operation that extends through 1994.

Additionally...

...of steam will be sold to a nearby sawmill.

The Ann Arbor, Mich., office of **Black & Veatch** is working as engineer-constructor under a letter of intent. Whiting said that no equipment has been selected yet and that the selection would be coordinated by **Black & Veatch**.

An air permit is expected to be received in March, and preliminary discussions are being...

17/3,K/733 (Item 203 from file: 624)

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0199454

AES SELECTS PYROPOWER, MARUBENI, BLACK & VEATCH TO BUILD 3 PLANTS

Cogeneration Report February 23, 1990; Pg 7

Journal Code: COG

ISSN: 8756-372X

Section Heading: Markets

Word Count: 305 *Full text available in Formats 5, 7 and 9*

AES SELECTS PYROPOWER, MARUBENI, BLACK & VEATCH TO BUILD 3 PLANTS

TEXT:

...Corp. of Arlington, Va., has selected a consortium of Ahlstrom Pyropower Inc. of San Diego, **Black & Veatch** of Kansas City, Mo., and Marubeni Corp., a Japanese firm, to build three **coal**-fired, circulating fluid-bed cogeneration plants totaling some 585 MW and **costing** approximately \$1.2-billion.

Each unit will be wholly owned by AES, said Thomas Tribone, AES vice president.

An 180-MW plant in Honolulu, Hawaii, **costing** approximately \$380-million will sell power to Hawaiian Electric and steam to a Chevron Corp...

...total of 545 MW in operation or in testing, and a \$475-million, 325-MW **coal**-fired plant under construction.

Tribone said "five or six" other projects are under development "each typically a **coal**-fired, 180-MW unit." He also said the company is not looking for "explosive growth," but is "picking opportunities very carefully."

AES, which usually develops **coal** projects, is studying both the use of pressurized fluidized-bed combustion boilers and gas-fired...

17/3,K/734 (Item 204 from file: 624)

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0193850

COAL AND CAPITAL PRICES FOUND KEY TO NUCLEAR COMPETITIVENESS

Nucleonics Week February 8, 1990; Pg 1; Vol. 31, No. 6

Journal Code: NUC ISSN: 0048-105X

Word Count: 1,305 *Full text available in Formats 5, 7 and 9*

BYLINE:

Ann MacLachlan, Paris

TEXT:

... says. In any case, the OECD agencies were unable to include the information about the **cost** of new **power generation** technologies, including clean **coal** -burning technologies, in their comparison with nuclear and **coal** because of the lack of good- **quality** cost data, one author said.

The conclusions for new baseload generating capacity in the developing ...

17/3,K/735 (Item 205 from file: 624)

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0178421

Gradual rise is calm before storm

Engineering News-Record December 14, 1989; Pg 78; Vol. 223, No. 24

Journal Code: ENR ISSN: 0013-807X

Section Heading: Fourth Quarterly **Cost** Report: Utility **Costs**

Word Count: 493 *Full text available in Formats 5, 7 and 9*

BYLINE:

Richard Korman

Section Heading: Fourth Quarterly **Cost** Report: Utility **Costs**

TEXT:

Gradually rising power plant **costs** indicate that the reviving electric utility market has put an end to the 1% and 2% yearly **cost** increases last seen in 1987. Some designers believe that when the long-predicted upsurge in projects finally arrives, equipment **costs** could take an even bigger jump because the thinned ranks of manufacturers will have trouble...

... The biggest increases this year have occurred in the North Atlantic region, where hydroelectric plant **costs** rose almost 9%, according to figures compiled by Whitman, Requardt & Associates, a Baltimore-based consulting...

... to keep "operating until the surge arrives," says William H. Miller, head of the project **cost** and scheduling division of Sargent & Lundy, Chicago.

Increased demand. That doesn't apply across the...

... equipment, and he says his shop is just about getting full. When that happens, the **price** goes up."

Equipment manufacturers as a whole may have a hard time gearing up next ...

...and new young people haven't been trained."

Another factor that may drive up the **costs** of the next crop of hydroelectric plants in particular is a diminishing number of good...

... Hollrah, the partner who heads the professional services department in the power division of engineer **Black & Veatch**, Kansas City, Mo. "Constructing a dam on a 1,000-ft-wide channel is more...

... baseload capacity taken by utilities, and the presence of independent power producers (IPPs), will keep **cost**-consciousness high. "IPPs are more interested in shorter periods of capital recovery and that tends to drive the capital **costs** of the plant down," explains one designer.

Miller believes that power producers, in their struggle to hold down construction **costs**, may end up sacrificing operating reliability. He recently heard of an extremely low-**cost** plant fueled by pulverized **coal**. "The thing you may find is that there is no maintenance space and no redundancy..."

SPECIAL FEATURE:

Table: Electric utility construction **costs** (This table is not available electronically. Please see the December 14, 1989 issue.)

Source: Whitman...

17/3,K/736 (Item 206 from file: 624)

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0170616

Distribution agency plans four small units

Engineering News-Record November 9, 1989; Pg 52; Vol. 223, No. 19

Journal Code: ENR ISSN: 0013-807X

Section Heading: News

Word Count: 140 *Full text available in Formats 5, 7 and 9*

TEXT:

The Indiana Municipal Power Agency has retained **Black & Veatch**, Kansas City, Mo., to design four fossil-fuel generating units estimated to **cost** \$80 million. They will provide peaking power and reduce dependence on purchased supplies.

Indianapolis-based...

... have a total of 145,000 customers. The agency, which now operates one medium-sized **coal**-fired unit, hopes to win regulatory approval for its new plants by next April. Then...

17/3,K/737 (Item 207 from file: 624)
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0160629

DOE GETS 47 CLEAN COAL PROPOSALS, INCLUDING 20 WITH UTILITY SPONSORS

Electric Utility Week September 4, 1989; Pg 10

Journal Code: EUW ISSN: 0046-1695

Section Heading: Clean **Coal**

Word Count: 1,104 *Full text available in Formats 5, 7 and 9*

DOE GETS 47 CLEAN COAL PROPOSALS, INCLUDING 20 WITH UTILITY SPONSORS

Section Heading: Clean **Coal**

TEXT:

...S. Dept. of Energy last week received 47 proposals in round three of its Clean **Coal** Technology Program, 20 of which included utilities as members of the project teams.

DOE said...

... 10 to 15 projects. Private sponsors are expected to shoulder at least 50% of the **cost**, and in many cases have pledged much more.

A seven-member evaluation board is to...

... plants; 17 were for repowering projects; nine were for projects that change the form of **coal**; three were for projects that either combined elements of other categories or did not fit...

... state officials had complained that the program appeared to be biased toward eastern and midwestern **coals**.

By 1992, DOE said, the program is expected to finance at least \$5-billion of...

... which last week wrote to energy secretary James Watkins protesting the CCT expenditures.

The clean **coal** program is not based on least-**cost** energy planning "and will bias the market against better energy alternatives," Public Citizen energy policy analyst Geoffrey Davis wrote.

Many conservation measures **cost** less than half what clean **coal** projects will **cost** and many renewable energy technologies "are already **cost** -competitive with **coal**," he said. Additionally, Davis said, even clean **coal** technologies emit unacceptable levels of sulfur dioxide and nitrogen oxides, and they contribute to carbon...

... plant in W. Paducah, Ky. The Tennessee Valley Authority is a team member. Total estimated **cost** is \$4.9-million.

-- Alaska Industrial Development & Export Authority of Anchorage: Healy cogeneration project. Team...

... Electric Assn. of Fairbanks, Joy Technologies, Stone & Webster Engineering, TRW Combustion Business Unit, and Usibelli **Coal** Mine in Healy, Alaska. Total estimated **cost** is \$191.7-million.

-- Arctic Slope Regional Corp., Anchorage: "Remote Alaska Repowering Demonstration Project." Team members include Nome Joint Utilities, Battelle Memorial Institute, and Mechanical Technology Inc. Total estimated **cost**

is \$74-million.

-- Babcock & Wilcox Co., Alliance, Ohio: full-scale demonstration of low-NOx cell...

... Unit-4, Aberdeen, Ohio. Team members include Dayton P&L, Electric Power Research Institute, Ohio **Coal** Development Office, and five other utilities. Total estimated **cost** is \$9.7-million.

-- Bechtel Corp. of San Francisco: confined zone dispersion (CZD/flue gas...

... demonstration), at Pennsylvania Electric Co.'s Seward Station. Team members include Pennsylvania Electric. Total estimated **cost** is \$8.5-million.

-- City of Independence, Mo.: **coal**-fired combined repowering cycle demonstration at city's Blue Valley Station. Team members include Stone & Webster Engineering, Combustion Engineering, and ASEA Brown Boveri. Total estimated **cost** not listed.

-- Cycleclean Inc., of Georgetown, Texas: microwave clean **coal** project, at Western Illinois Power Cooperative, Jacksonville, Ill. Team members include the cooperative and the National Rural Electric Cooperative Assn. Total estimated **cost** is \$6-million.

-- Dairyland Power Cooperative of La Crosse, Wis.: Alma pressurized circulating fluidized bed demonstration project, at Dairyland's Alma, Wis. stations. Team members include **Black & Veatch** and Pyropower Corp. Total estimated **cost** is \$183.8-million.

-- Duke Power Co. of Charlotte, N.C.: full-scale demonstration of...

... 2. Team members include EPRI and Electric Power Technologies of Menlo Park, Calif. Total estimated **cost** is \$46.8-million.

-- Ebara Environmental Corp. of Greensburg, Pa.: Ebara electron beam flue gas...

... E.W. Stout plant's Unit-7. Team members include Indianapolis P&L. Total estimated **cost** is \$46.4-million.

-- Energy and Environmental Research Corp. of Irvine, Calif.: evaluation of gas...

... Colorado's Cherokee Station Unit-3. Team members include Public Service of Colorado. Total estimated **cost** is \$14.5-million.

-- Energy Partners Inc., of Washington, D.C.: TCS/Babcock System Retrofit...

...Peabody Holding Co., TCS Inc., the state of Illinois, and Federal Search Inc. Total estimated **cost** is \$12.7-million.

-- LIFAC North America, a joint venture of Tampella Ltd and ICF...

... 2 plant. Team members include Richmond P&L, EPRI, and Peabody Holding Co. Total estimated **cost** is \$18.7-million.

-- Lin Technologies of Angola Ind.: improved Lin SOx/NOx removal and...

...include the state of Indiana, Ohio Dept. of Transportation, and Richmond P&L. Total estimated **cost** is \$4.1-million.

-- Manitowoc Public Utilities, Manitowoc, Wis.: demonstration firing of high chlorine U.S. **coals** using atmospheric circulating fluidized bed boiler technology. Team members include Foster Wheeler Energy Corp., Foster Wheeler Development Corp., and Lutz, Daily & Brain. Total estimated **cost** is \$24-million.

-- Minnesota Power & Light: ELFUEL demonstration of low-rank **coals**, in Oliver County, N.D. Team members include BNI **Coal** Ltd., Institute of Gas Technology, EPRI, and Bechtel. Total estimated **cost** is \$146-million.

-- Public Service Co. of Colorado: integrated dry NOx/SOx emission control system... EPRI, Fossil Energy Research Corp., Western Research Institute, and Colorado School of Mines. Total estimated **cost** is \$24.5-million.

-- Public Service Co. of Indiana: Wabash River Clean Energy Project, at ...

...Gas Turbine Division of General Motors Corp., Foster Wheeler Development Corp., Gilbert Commonwealth, and AMAX **Coal** Enterprises. Total estimated **cost** not listed.

-- University of North Texas: "reduction of SO2 and NOx by cofiring binder densified refuse-derived fuel with **coal** in power plant boilers." Team members include Virginia (Minn.) Dept. of Public Utilities, Reuter Inc., and Argonne National Laboratory. Total estimated **cost** \$112.3-million.

-- Sanitech Inc. of Twinsburg, Ohio: NelSorbent dry scrubbing demonstration project, at Kent State University. Team members include Fluor Daniel Inc., Kent State, and Ohio Edison. Total estimated **cost** is \$8-million.

17/3,K/738 (Item 208 from file: 624)

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0155560

VA. POWER JOINS CO-OP TO BUILD COAL UNITS; RFP OUT FOR 1,100 MW BY 1997

Electric Utility Week August 21, 1989; Pg 1

Journal Code: EUW ISSN: 0046-1695

Word Count: 1,078 *Full text available in Formats 5, 7 and 9*

VA. POWER JOINS CO-OP TO BUILD COAL UNITS; RFP OUT FOR 1,100 MW BY 1997

TEXT:

... 15 that it would join with Old Dominion Electric Cooperative and build two 393-MW **coal** plants, and operate both.

Also on Aug. 15, the company solicited bids for up to...

... ODEC had asked the state Corporation Commission on June 12 to approve one 393-MW **coal** plant, near Clover, Va., for completion by December 1993.

The second would be done by December 1994, under the new plan. The units

would run on pulverized **coal** , with pollution control by wet scrubbers and baghouse fabric filters.

Both utilities would save money...

...at the company's Surry nuclear plant (Docket No. PUE880033).

Chesterfield-8 is expected to **cost** about \$134-million, or \$613/kW, and would go on line by June 1992. The peakers, expected to **cost** about \$111-million or \$333/kW, would go on line by November 1990.

Even with...

... participation in the Clover units is a unique, economically attractive opportunity....

"We have judged its **costs** against the **cost** of capacity offered through the competitive market in our March 1988 solicitation--both the winning...

... losing projects that were to go in service in 1994--and have determined that the **costs** are less than those offered by the market....due to the economies of scale achieved...

...competitive bid offered by the construction consortium."

In January 1989 dollars, Virginia Power estimated capital **costs** and dispatch **costs** for the two Clover **coal** units and alternatives. The Clover units came in with a dispatch **cost** of 1.64 cents/kWh, and capital **costs** of \$1,230/kW for Clover-1 and \$920/kW for Clover-2.

An 80-MW combustion turbine would have a capital **cost** of \$337/kW and a dispatch **cost** of 3.29 cents/kWh, while **costs** for a 210-MW advanced combined-cycle plant would be \$598/kW and 2.21 cents/kWh, and a 400-MW **coal** plant built by Virginia Power alone would **cost** \$1,308/kW and 1.82 cents/kWh.

ODEC vice president of accounting and finance Daniel Walker testified that ODEC's total **cost** for one unit, including **coal** inventory, was estimated at \$585,271,636, while its share of two units would drop to \$525,668,534.

Virginia Power's total **cost** for its 50% share of the Clover units, not including interest during construction and including transmission and substation **costs** and bonuses to the consortium, would be \$533,813,202, estimated vice president-fossil and...

... under the existing pact between ODEC and a consortium including Combustion Engineering, Westinghouse Electric Corp., **Black & Veatch** Engineers-Architects, and the H.B. Zachry Co. Implementation of the consortium contract is being...calls for 175 MW by 1995, 500 MW by 1996, and 425 MW by 1997. **Price** factors would be weighted 70% and non- **price** factors 30%, including viability (10%), fuel and fuel diversity (10%), and another 10% for dispatchability...

17/3,K/739 (Item 209 from file: 624)
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0132706

**Consultant wins big on a good bet: Sophisticated computer system positions
Black & Veatch in a reviving market**

Engineering News-Record July 6, 1989; Pg 32; Vol. 223, No. 1

Journal Code: ENR ISSN: 0013-807X

Section Heading: Cover Story

Word Count: 1,574 *Full text available in Formats 5, 7 and 9*

BYLINE:

Nadine M. Post in Kansas City

: Sophisticated computer system positions Black & Veatch in a reviving market

TEXT:

Black & Veatch 's P. James Adam knows what it's like to be out on a limb
...

...including 2,600 Mw of gas and oil-fired units in Thailand, a 400-Mw **coal** -fired plant in Virginia and three independent power projects totaling 500 Mw.

B&V, a...

... values--integrity and quality work--part of a legacy from their late founders, Ernest B. **Black** and **Veatch** . The values helped carry the firm through the '80s slump. Adam, who has been credited...

...Not yet one of the 51 partners and more overtly a nonconformist than the typical **Black & Veatch** --he once wore a necktie-imprinted T-shirt to protest a dress code--Voeller epitomizes...once-retired fire protection engineer who joined the firm last August, says, "I have seen **Black & Veatch** apply professional expertise far beyond the budget parameters." And, unlike some others, "project work is...

...to 51.

Executive partner Allen M. Acheson--a 26-year veteran--is the quintessential elder **Black & Veatch** . For many years chairman of **Black & Veatch** International, Acheson was primarily responsible for major power contracts in Thailand, wastewater work in Cairo...

... pull in the rope." For example, about 10 years ago a crane operator installing a **coal** conveyor called the firm to say that, due to a design error, the conveyor would...

...reviewed his engineers' emergency \$150,000 fix. Realizing the firm would have to absorb the **cost** , he determined that a simple \$4,000 structural member would suffice. "I earned my keep..."

... That's too bad for the contractor because, as one competing consulting engineer puts it: "**Black & Veatch** is everywhere." ...

17/3,K/740 (Item 210 from file: 624)

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0130744

ORLANDO MUNI PLANS SECOND 435-MW COAL -FIRED UNIT AT STANTON PLANT

Electric Utility Week June 6, 1989; Pg 8

Journal Code: EUW ISSN: 0046-1695
Section Heading: Planning
Word Count: 382 *Full text available in Formats 5, 7 and 9*

ORLANDO MUNI PLANS SECOND 435-MW COAL -FIRED UNIT AT STANTON PLANT

TEXT:

... Commission now plans to build a second unit identical to the newly operating 435-MW **coal** -fired Plant Stanton, possibly as early as 1990.

Plant Stanton entered service in May 1987, and has functioned above expectations after **costing** several million dollars under budget, according to an OUC spokesman. Building a second unit will...

...plant must be on line by 1997. In an effort to stall construction of the **coal** -fired unit, OUC is nearly finished building two gas- or oil-fired 35-MW combustion...

... said. The engineering/architectural firm that will be in charge of the project will be **Black & Veatch** Inc. of Kansas City, Mo.

OUC will probably seek partners, such as the Florida Municipal...

... of the power produced and then decrease power sales as its own needs increase.

The **cost** for the second unit is estimated to be between \$400-million and \$500-million, a...

... already been obtained and approved and the two units would be able to share common coal handling and storage facilities.

17/3,K/741 (Item 211 from file: 624)
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0129294

A twin coal -fired unit will be bargain- priced
Engineering News-Record June 15, 1989; Pg 16; Vol. 222, No. 24
Journal Code: ENR ISSN: 0013-807X
Section Heading: News
Word Count: 220 *Full text available in Formats 5, 7 and 9*

A twin coal -fired unit will be bargain- priced

TEXT:

... utility in Orlando, Fla., is so pleased with the operation of its new 435-Mw, **coal** -fired generating unit that it plans to build an identical one, possibly as early as...

... spokesman for the Orlando Utilities Commission (OUC). A second unit would be easier and less **costly** to build than the first, he says.

The site has received all necessary permits for...

...needs determinations by the Florida Public Service Commission. Also, the two units would share common **coal** storage and handling facilities.

The **cost** of the second unit is estimated at \$400 million to \$500 million, compared with the...

...unit must be on line by 1997.

OUC's design and management consultant will be **Black & Veatch**, Kansas City, Mo., which had the same role on the first unit. The utility spokesman ...

17/3,K/742 (Item 212 from file: 624)
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0128970

New site for controversial Sri Lankan plant

Coal Week International March 14, 1989; Pg 8; Vol. 10, No.11

Journal Code: CWI ISSN: 0149-578X

Section Heading: Elsewhere in International **Coal**

Word Count: 113 *Full text available in Formats 5, 7 and 9*

Section Heading: Elsewhere in International **Coal**

TEXT:

The Ceylon Electricity Board has handed over the feasibility study for a **coal** -fired power plant in Sri Lanka to **Black and Veatch** International of Kansas City. The CEB's original plan was to site the plant--which will **cost** around \$300 million--in the Eastern coastal town of Trincomalee. But according to the Minister...

17/3,K/743 (Item 213 from file: 624)
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0125771

ORLANDO TO PAY BECHTEL \$9-MILLION IN SETTLEMENT ON ADDED PLANT COSTS

Electric Utility Week May 8, 1989; Pg 7

Journal Code: EUW ISSN: 0046-1695

Section Heading: Equipment & Services

Word Count: 208 *Full text available in Formats 5, 7 and 9*

ORLANDO TO PAY BECHTEL \$9-MILLION IN SETTLEMENT ON ADDED PLANT COSTS

TEXT:

... Utilities Commission (OUC) over additional charges stemming from the construction of OUC's 460-MW **coal** -fired Stanton plant, according to an OUC spokesman.

Bechtel had sought to recoup the entire \$21.6-million in added labor and capital **costs** the company incurred in providing metal framing and piping work for the plant, which went...

...spokesman said.

He added that OUC accepted partial responsibility for delays that increased Bechtel's **costs** about \$5-million for labor and \$4-million for materials.

OUC, which owns 68% of...

... other Florida cities that own portions of the plant will pay

\$2.4-million, and **Black & Veatch** Architecture & Engineering, the construction management firm for the project, will pay \$1-million. The spokesman...

17/3,K/744 (Item 214 from file: 624)
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0124476

HADSON, UTILICORP EYE FOUR 150-MW UNITS; FIGHT VA. CO-OP'S PROJECT

Cogeneration Report May 5, 1989; Pg 1

Journal Code: COG ISSN: 8756-372X

Word Count: 410 *Full text available in Formats 5, 7 and 9*

TEXT:

...Houston, and UtiliCorp United, Kansas City, Mo., have announced plans to build four, 150-MW, **coal** -fired cogeneration plants in mid-central and eastern Virginia and sell power to retail distribution...

...contract to a consortium of manufacturers and engineering firms to build its own 393-MW, **coal** -fired facility in Clover, Va.

Both proposals have been presented to the Virginia Corporation Commission...

... the turbines; Combustion Engineering, boiler island, baghouse and scrubber; H.B. Zachry Co., construction; and **Black & Veatch**, design engineering. Start-up is scheduled for 1993.

Jordan, however, added that ODEC will continue...

...since ODEC had recently awarded a contract, the utility may spend enough money on development **costs** to make its plan a "fait accompli," meaning that the commission would be reluctant to...

17/3,K/745 (Item 215 from file: 624)
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0118552

Special Report: The Top 500 Design Firms

Engineering News-Record April 6, 1989; Pg 62; Vol. 222, No. 14

Journal Code: ENR ISSN: 0013-807X

Section Heading: Special Report: The Top 500 Design Firms

Word Count: 1,393 *Full text available in Formats 5, 7 and 9*

BYLINE:

Rob McManamy, with bureaus

TEXT:

...MK also is pursuing opportunities for nuclear maintenance work in Taiwan, office work in Japan, **coal** mining in Thailand, **coal**, power and industrial plants in mainland China and general infrastructure and transportation in the Philippines...

TABLE:

...Argentina (21)
11. Bolivia (4)

12. Brazil (23)
13. Chile (17)
14. Colombia (17)
15. **Costa** Rica (7)
16. Ecuador (7)
17. El Salvador (10)
18. Guatemala (9)
19. Guyana (5...

...Ebasco Services Inc.
28 McDermott International Inc.
29 A. Epstein and Sons Intl. Inc.
30 **Black & Veatch**
31 Tribble Harris Li Inc.
32 CH2M Hill Inc.
33 Litwin Engineers & Constructors Inc.
34...

17/3,K/746 (Item 216 from file: 624)
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0107048

Water projects advance as power business shifts gears

Engineering News-Record January 19, 1989; Pg 66; Vol. 222, No. 3
Journal Code: ENR ISSN: 0013-807X
Section Heading: Special Report: Outlook '89
Word Count: 884 *Full text available in Formats 5, 7 and 9*

BYLINE:
Allen Soast

TEXT:

Prospects are improving for major water projects unleashed by federal **cost**-sharing provisions and pressure exerted by rapid growth in some regions. Also, opportunities are growing...

...16 new starts valued at \$1.6 billion, nearly 40% to be provided by local **cost** sharing.

The largest job by far is the \$775-million Olmstead Lock and Dam on...

...will supply irrigation and municipal water to parts of southern Colorado and northern New Mexico. **Cost** sharing is to provide over half of the financing.

There will be other locally-sponsored...

... desalination plant using new electrodialysis-reversal technology. It is said to be more efficient and **cost** less than a conventional reverse osmosis plant.

In the Golden State, proposals go even further...

...without ever building another large powerplant," says Charles W. Keller, power division marketing director at **Black & Veatch**, Kansas City, Mo.

Virginia Power says that it will contract for 5,800 Mw of...

...president of Bechtel Power Corp., San Francisco. "Almost all are turnkey jobs for a fixed **price** ," he says. "We are increasingly asked to take an equity position or arrange financing. We...

...Utility Regulatory Policies Act regulations.

Of particular concern is how determinations of so-called avoided **costs** should be made, establishing how much a private power producer is paid. Other issues are...

...circulating-fluidized-bed combustion, even for retrofitting aged plants. It can burn even low-quality **coal** cleanly. But, Hull says, "Over the next few years the market will be dominated by...

... Power Research Institute says geothermal power is getting close to life-cycle economic parity with **coal** -fired generation.

Finally, magnetohydrodynamics is emerging from a period in the doldrums. Under a five...

...University of Tennessee Space Institute at Tullahoma is putting together plans to retrofit two existing **coal** -fired utility units with MHD combustors. ...

SPECIAL FEATURE:

...of the alternative energy sources that may play a role in the 1990s.

Photograph: Old **coal** -fired plants offer a growing market for complex and expensive retrofitting projects.

Photograph: Fluidized-bed units promise clean **coal** burning to meet stiffening environmental regulations.

Photograph: Water supply dams for growing regions become a...

17/3,K/747 (Item 217 from file: 624)

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0096717

First EPA ruling on renovation could impede costly programs

Engineering News-Record November 10, 1988; Pg 12; Vol. 221, No. 19

Journal Code: ENR ISSN: 0013-807X

Section Heading: News

Word Count: 700 *Full text available in Formats 5, 7 and 9*

BYLINE:

Allen Soast in New York and Earnest Britton in Washington

First EPA ruling on renovation could impede costly programs

TEXT:

The U.S. Environmental Protection Agency has ruled for the first time that an old **coal** -fired powerplant slated for renovation must meet the same emission standards as a new one...

... life extension is enormous," says Charles W. Keller, marketing director of the power division at **Black & Veatch** , Kansas City, Mo. Jim Adam, executive partner of the division, has said it will exceed...

... discussing alternative ways to assure compliance with EPA officials. Options include switching to lower-sulfur **coal** --requiring minor modifications to the boilers--but not a more **costly** conversion to gas or oil.

The utility has not yet considered adding scrubbers to the...

... N.J., says that all the modifications required to bring stack emissions into compliance might **cost** between \$55 million and \$100 million. The **cost** hinges on a number of factors, including the sulfur content of the **coal**.

Officials of Bechtel Power Corp., San Francisco, consultant to WEPCO on the Port Washington project...

...adds, "We have seen a 26% decline in sulfur emissions vs. a 70% increase in **coal** burning since '71."

DOE says that 70% of the country's 720,000 Mw of...

... not renovated. Many were built during a large wave of powerplant construction in the 1950s. **Black & Veatch** says there are 1,100 in that category, more than half of them **coal** -fired. Another major wave of construction in the 1970s produced units that will start reaching...

SPECIAL FEATURE:

Photograph: **Coal** -fired powerplant is focus of a decision that may rewrite the economics of the power...

17/3,K/748 (Item 218 from file: 624)
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0091152

FIRM PLANNING 166-MW COGENERATION UNIT AT GM PLANT IN LOCKPORT, N.Y.

Cogeneration Report September 23, 1988; Pg 19

Journal Code: COG ISSN: 8756-372X

Section Heading: New Projects

Word Count: 372 *Full text available in Formats 5, 7 and 9*

TEXT:

... Empire has negotiated a turnkey contract with MMR/Wallace of Baton Rouge, La., for construction. **Black & Veatch** of Kansas City, Mo., is doing engineering for MMR/Wallace under the turnkey contract and...

... heat boilers, auxiliary boilers, switch gear, cooling towers, and control systems.

Korn declined to reveal **cost** figures, though he said the facility would **cost** in excess of \$100-million. The on-line date is September 1990.

Korn also declined...

... which he said the company had some verbal commitments. The projects include gas-turbine and **coal** -fired facilities using stokers.

Meanwhile, additional employees are being sought for the expansion of Empire...

17/3,K/749 (Item 219 from file: 624)
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0084680

Feeling the heat for electricity

Engineering News-Record August 25, 1988; Pg 13; Vol. 221, No. 8
Journal Code: ENR ISSN: 0013-807X
Section Heading: News
Word Count: 258 *Full text available in Formats 5, 7 and 9*

TEXT:

... Weymouth. Boston Edison expects to award a contract for getting the plant permitted in December. **Cost** estimates were not released for any of the bids. The bidders and proposals for the turnkey project are:

-- Bechtel Eastern Power Corp., Gaithersburg, Md.--a 300-Mw pulverized-coal unit with dry scrubbers.

-- **Black & Veatch**, Kansas City--a 374-Mw natural-gas-fired, combined-cycle plant; a 360-Mw **coal** plant with wet limestone scrubbers; or a 600-Mw **coal** plant with wet scrubbers.

-- CRS Sirrine Inc., Greenville, S.C.--a 376-Mw combined-cycle...
...cycle plant fired with oil and natural gas.

-- Fluor Daniel Inc., Chicago--a 307-Mw **coal** plant with dry scrubbers.

-- United Engineers & Constructors Inc., Philadelphia--a 302-Mw combined-cycle plant...

17/3,K/750 (Item 220 from file: 624)
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0070433

Oil fire shuts plant, new one may be built

Engineering News-Record May 26, 1988; Pg 18; Vol. 220, No. 21
Journal Code: ENR ISSN: 0013-807X
Section Heading: News
Word Count: 369 *Full text available in Formats 5, 7 and 9*

TEXT:

A fire shut down a 1,200-Mw **coal** -burning powerplant in Palatka, Fla., owned by Seminole Electric Cooperative Inc. One of the plant...

...of the damage was still not known. The plant was completed in 1984 at a **cost** of \$962 million.

Meanwhile, the cooperative has filed a petition with the state Public Service...

... oil or gas. It would be designed so it could be converted to burn gasified **coal**.

But the utility instead may purchase 440 Mw from cogenerators and other small power producers...

...Construction could begin in mid-1990 and be completed by January 1993.

Seminole has retained **Black & Veatch**, Kansas City, Mo., as designer. KBN Engineering and Applied Sciences Inc., Gainesville, Fla., will conduct ...

17/3,K/751 (Item 221 from file: 624)
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0059387

SRP QUITs 350-MW COAL UNIT; TO BUY INSTEAD FROM TEP, ARIZONA ELECTRIC
Electric Utility Week February 15, 1988; Pg 1
Journal Code: EUW ISSN: 0046-1695
Word Count: 484 *Full text available in Formats 5, 7 and 9*

SRP QUITs 350-MW COAL UNIT; TO BUY INSTEAD FROM TEP, ARIZONA ELECTRIC

TEXT:

Salt River Project's third 350-MW Coronado **coal** -fired plant, under construction since 1986, is being suspended and needed power will be purchased...

... Jack Pfister said over the long term the purchased power from TEP and AEPC will **cost** about 6.1 cents/kWh--about half the **cost** of the power to be produced from a new Coronado plant.

Directors of SRP left...

... the possibility of finishing the generating station by 2004 if demand rises. Pfister said the **costs** for closing out existing contracts will total about \$250-million for the \$670-million project...

... estimated to range from \$160-million to \$216-million, at present value, compared with the **cost** of 20 years' power production from Coronado-3.

That calculation excludes any benefit from the...

... guided by two purposes in making the decision to suspend work on the plant. The **price** for surplus power available has dropped sharply in recent years and SRP is being pressed...

...of that \$250-million back, but I don't think we should say that today."

Black & Veatch Engineers-Architects of Kansas City, Mo., construction managers on the project, offered to buy a...

17/3,K/752 (Item 222 from file: 624)
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0057612

AES SIGNS PACTS WITH TWO UTILITIES FOR SALES FROM 180-MW R.I. FACILITY
Cogeneration Report January 29, 1988; Pg 16
Journal Code: COG ISSN: 8756-372X
Section Heading: New Projects
Word Count: 339 *Full text available in Formats 5, 7 and 9*

TEXT:

...at liberty to discuss the terms and conditions of the contract.

The facility will incorporate **coal** -fired, fluidized-bed boilers. Steam from the plant will be used for a carbon dioxide...

...Construction will begin in July 1989 with an on-line date of early 1992.

The **cost** of the plant, including the carbon-dioxide facility and a **coal** -loading and storage facility at East Providence, R.I., is estimated at \$250-million to...

...the year, and financial closing is expected immediately after permitting is completed in mid-1989. **Black & Veatch** is handling permitting.

Murtlow said the Woonsocket plant will be similar to one being constructed...

... plant will produce 180 MW for sale to area utilities. The prime contractor there is **Black & Veatch**. A contract for the Woonsocket plant is to be awarded within six months, she said.

Negotiations are being conducted with **coal** suppliers for the estimated 600,000 tons/year of bituminous necessary for the Woonsocket facility, she added.

Meanwhile, AES is constructing a 320-MW **coal** -fired fluidized-bed plant at Poteau, Okla. The electricity from the \$475-million facility is...

17/3,K/753 (Item 223 from file: 624)
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0054648

Environmental programs thrive, river control and energy revive

Engineering News-Record January 21, 1988; Pg 86; Vol. 220, No. 3

Journal Code: ENR ISSN: 0013-807X

Section Heading: Special Report: Outlook '88: Water & Power

Word Count: 1,608 *Full text available in Formats 5, 7 and 9*

BYLINE:

John J. Kosowatz and Allen Soast

TEXT:

... country is going through industrial renovation," he says. "Companies have trimmed down and become more **cost** -effective. They have found that they don't need a large environmental services staff in...Engineers civil work and the Bureau of Reclamation actually rose for fiscal 1988. And local **cost** -sharing agreements will keep those agencies' programs very much alive. In fact, adding in non...

... on the Ohio River near Paducah, Ky., to replace two obsolete ones. More important, its **cost** -sharing provisions give the agency what Corps chief Lt. Gen. Vald Heiberg calls "a hunting...

... 30 to 50 years," says Charles W. Keller Jr., head of the power division at **Black & Veatch**, Kansas City, Mo.

That effort will be fostered by advances in clean- **coal** technology. DOE says it can be applied to boost an existing plant's generating capacity by

up to 170% while cutting emission control **costs** by as much as 65%. With its own healthy authorization for promoting the technology, the...

SPECIAL FEATURE:

Photograph: **Coal** -burning powerplants are aging and call for retrofits, a growing new market opportunity.

Photograph: Sewage...

...way to advance water supply and flood control work.

Photograph: Clean water regulations will require **costly** analysis and sophisticated system improvements.

Photograph: Sewage sludge composting reaps benefits from a volume of...

17/3,K/754 (Item 224 from file: 624)
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0042281

Pulse

Engineering News-Record August 27, 1987; Pg 33; Vol. 219, No. 9
Journal Code: ENR ISSN: 0013-807X
Section Heading: Pulse
Word Count: 3,755 *Full text available in Formats 5, 7 and 9*

TEXT:

... 000 ft. runway. Planned by Benzeevi Cohen Corp., 10880 Wilshire Blvd., Los Angeles 90024. Estimated **cost** for this long-range project, \$1.5 billion. Received FAA airspace approval.

Georgia--Wilma Southeast...

... and mid-rise office buildings at Atlanta Tradeport on I-285 and I-75. Estimated **cost** , \$300 million. Phase 1 construction underway with completion scheduled for Dec. '87. Architects-engineers not...

... facility is planned by Eastman Kodak Co., 1669 Lake Ave., Building 23, Rochester 14615. Estimated **cost** , in excess of \$200 million. (ENR 4/9 p. 35).

Virginia--LBC&W, 5203 Leesburg...

...F.L. Roberts & Co. and Monarch Capital Corp., P.O. Box 1964, Springfield 01101. Total **cost** for phases 1 and 2, \$125 million. Phase 1 proposal is under city review.

New...

... by Jersey City Health Care Corp., Medical Center, 50 Baldwin Ave., Jersey City 07301. Total **cost** , including equipment, land and additional fees, \$108 million.

Virginia--VVKR Inc., 901 N. Pitt St...

... of Corrections, located at 4615 W. Broad St., P.O. Box 26963, Richmond 23261. Estimated **cost** for this project, \$75 million to \$85 million. Construction management selection underway.

Texas--The Parker...

... Fort Worth. Planned by Tarrant County Commissioners, 100 E. Weatherford St., Fort Worth 76196. Estimated **cost** , \$59.5 million. (ENR 8/6 p. 44).

Indiana--Henningson Durham & Richardson Inc., 8404 Indian...

... Hare Airport in Chicago. Planned by United Airlines Inc., P.O. Box 66100, Chicago 60666. **Cost** estimate for three phases, \$40 million. Phase 1 contract has been awarded.

Arizona--WZMH Group...

... developer GHM Corp., 333 E. River Dr., Commerce Center #1, East Hartford, Conn. 06108. Estimated **cost** , in excess of \$40 million.

California--Ellerbe Associates Inc., One Appletree Square, Minneapolis, Minn. 55420...

... and 100 condo units, is planned by Cificap, 1240 Bayshore Highway, Burlingame 94010. Estimated construction **cost** , \$40 million.

New York--J.J. Johnson & Associates, Park Meadow Plaza, Park City, is architect...

... and Lake Luzerne. West Mountain Villages Inc., 11 N. Pearl St., Albany 12207, is developer. **Cost** estimate for phase 1, \$40 million. Environmental impact study underway.

Florida--Roberts & Schaefer Co., 120...station is planned by CFR Bio-Gen Corp., P.O. Box 20205, Tallahassee 32316. Estimated **cost** for this project, \$38 million. Completion tentatively scheduled for 1990.

Texas--3D/International, 1900 West...

... Logistics Center/Directorate of Contracting & Manufacturing, Building 1598, Kelly Air Force Base 78241-5000. Estimated **cost** , \$36 million.

Massachusetts--The Architects Collaborative Inc., 46 Brattle St., 02138, will prepare schematic design...

... for computer center at Denver Technical Center. Planned by United Airlines, c/o architect. Estimated **cost** , \$25 million.

Missouri--The Lawrence Group, 1904 LaSalle St., St. Louis 63104, will prepare preliminary...

... Properties Redevelopment Corp., c/o The Lawrence Group, 1904 LaSalle St., St. Louis 63104. Estimated **cost** , \$20 million.

New York--Archiplan International Ltd. of Rolling Meadows, Ill., is architect, c/o...

... Airport in Loudoun County is planned by Evans Co., 8251 Greensboro Dr., McLean 22102. Estimated **cost** , \$18 million.

California--BFGC Inc., P.O. Box 9698, 31 S. Real Rd., Bakersfield 93309...

... Lane in Bakersfield. Planned by Kern High School District, 2000 24th St., Bakersfield 93301. Estimated **cost** , \$16 million to \$17 million.

Illinois--Ellerbe Associates Inc., located at One Appletree Square, Minneapolis...

... The LCF Foundation/Charles A. Dana Ambulatory Care Center, 41 Mall Rd., Burlington 01805. Estimated **cost** , \$15 million.

Connecticut--The Farmington-based firm of Russell Gibson & Von Dohlen Inc., 281 Farmington...

... Hartford. Planned by GHM Corp., 333 River Dr., Commerce Center #1, East Hartford 06108. Estimated **cost** , \$12 million.—

Nebraska--Joint venture of Wilscom-Birge Associates Inc., 333 S. 20th, Omaha 69102...

... Cushing coliseum on campus. Planned by Kearney State College, 905 W. 25th, Kearney 68847. Estimated **cost** , \$10.6 million.

Pennsylvania--Curtis Cox Kennerly, 327 N. 17th St., Philadelphia 19103, will prepare...

...Development in Chester County. Planned by The Fox Cos., 1325 Morris Dr., Wayne 19087. Estimated **cost** , \$10 million.

Michigan--Gilbert/Commonwealth Cos., 209 E. Washington Ave., Jackson 49201, is architect to...

... by U.S. Army Corps of Engineers, P.O. Box 59, Louisville, Ky. 40202. Estimated **cost** , in excess of \$10 million.

New York--Eastman Kodak Co., 1669 Lake Ave., Building 23...

... disk manufacturing and research facility located at Kodak Park off Lake Ave. in Rochester. Estimated **cost** , \$10 million.

New Jersey--The New York City Office of Hellmuth Obata & Kassabaum Inc., located...

... by Rutgers State University Office of Facilities Design, 4115 Kilmer Area, New Brunswick 08903. Estimated **cost** , \$9.5 million.

South Carolina--GMK Inc., 1331 Elmwood Ave., Columbia 29201, is architect for...

... is planned by South Carolina Dept. of Mental Health, 2414 Bull St., Columbia 29201. Estimated **cost** , in excess of \$5 million.

JOBS ABROAD

Guinea--Ministere des Health et Affaires Sociales, Direction...Government of Karnataka, Irrigation Dept. and must be submitted no later than September 30th. Estimated **cost** , \$6.3 million to \$7 million. The Government of India has applied for a credit...

... Corp., P.O. Box 12033, Amarillo 79101, was the apparent low bidder for 500-Mw **coal** -fired electric generating plant, turnkey contract, Proj. rq #25, located at Calaveras Lake in San Antonio. City Public Service, P.O. Box 1771, San Antonio 78296, opened bids. Estimated project **cost** , \$444 million.

North Carolina--Ammons Dare Corp., P.O. Box 908, Nags Head 27959, owner...

... course, 900-room hotel, etc., located near U.S. Highway 158 in Nags

Head. Estimated **cost** for the multi-phase, six to seven-year project, \$200 million to \$300 million. McKimmon...

... as Newtown Office Park located at I-95 and Newtown-Yardley Rd. in Newtown. Estimated **cost** , \$27.5 million. Hans P. Stein Associates, 212 Race St., Philadelphia 19106, is architect.

Connecticut...

... 000-sq-ft. Pratt Street Limited Partnership, c/o construction manager, is developer. Estimated construction **cost** , \$27 million.

New York--Perini Corp., 615 Broadway, Hastings on Hudson 10706, was low bidder...

... 350 Moody St., Lowell 01854, Bishop Markham housing renovations at Gorham and Summer Sts. Estimated **cost** for this project, \$1.7 million. H.K. Fitzgerald, Jr. & Associates, architect-structural engineer, 31...

... Sept. 10--Town of Clayton, Town Hall, 27520, wastewater treatment facility, EPA #C370431-02-0. **Cost** estimate, \$2.1 million. Ragsdale Consultants, engineer, 4020 Westchase Blvd., Raleigh 27607.

Florida, Sept. 10... 91340, police facility, Job #7299, Plan #P-570, at intersection of First and Brand. Estimated **cost** , \$2.3 million. H. Wendell Mounce, architect, 3436 N. Verdugo Rd., Glendale 91208.

New York...

... Proj. #A0086, at intersection of Alt. U.S. 27 and Highway 544 in Haines City. **Cost** \$1.6 million to \$1.8 million. Smith Lunz Group Inc., architect-engineer, 3830 S...to central maintenance facility at Old Sanders Ford Building downtown in Raleigh. \$1.3 million. **Black & Veatch** , architect-structural engineer, 5540 Centerview Dr., Raleigh 27606.

District of Columbia, Sept. 15--U.S...

17/3,K/755 (Item 225 from file: 624)

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0028281

Nuke woes push coal plants

Engineering News-Record January 29, 1987; Pg 18; Vol. 218, No. 5

Journal Code: ENR

ISSN: 0013-807X

Section Heading: News

Word Count: 397 *Full text available in Formats 5, 7 and 9*

Nuke woes push coal plants

TEXT:

...Texas Utilities Electric Co. to move on a \$3-billion plan to build three new **coal** -fired powerplants and a \$490-million gas turbine expansion project.

"Even with the economic downturn...

... Mw gas-fired generating units at three facilities in northwest Texas. The Dallas office of **Black & Veatch** is designing all of the plants.

About 19% of the new capacity will come from...
...first two will be built at Twin Oaks near Franklin and have an estimated construction **cost** of \$1.9 billion, says TUEC spokesman Richard Ramsey. They are expected to come on...

... would go into operation this summer, with unit two expected to follow six months later. **Cost** estimates for the plant, which will use two Westinghouse pressurized-water reactors, have escalated to...

... billion. Last year, the utility claimed that any delay past mid-1987 would increase the **cost** of the project by \$35 million each month (ENR

5/1/86 p. 13). ...

17/3,K/756 (Item 226 from file: 624)
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0028268

Powerplant rebuilds confidence: Intermountain's coal -fired units are a technical and financial success

Engineering News-Record January 29, 1987; Pg 24; Vol. 218, No. 5

Journal Code: ENR ISSN: 0013-807X

Section Heading: Cover Story

Word Count: 1,960 *Full text available in Formats 5, 7 and 9*

BYLINE:

William G. Reinhardt in Delta, Utah

: **Intermountain's coal -fired units are a technical and financial success**

TEXT:

... Project was unfolding in the late 1970s, it looked as though the proposed four-unit, **coal** -fired station might become another victim of the killer tide sweeping the market for large...

... 5.5-billion budget, both set in 1978. That includes the transmission system and financing **costs** .

The success has dispelled the cloud hanging over the powerplant construction business. After WPPSS, "the industry needed a good project and IPP is it," says Roger W. Dutton, the **Black & Veatch** partner in charge of powerplant design for Intermountain. The Los Angeles Dept. of Water and ...

...project includes:

--Equipment able to handle and blend 4.4 million tons of low-sulfur **coal** a year delivered from five deep mines in Utah.

--An extensive delivery, storage and treatment...

... gas from each unit will be scrubbed to remove 90% of the sulfur dioxide produced. **Coal** available under long-term contracts has a sulfur content of only 0.5%, but blending facilities are provided to accommodate **coal** of varying quality. About 100,000 tons of limestone will be used yearly in the ...

... above sea level in a seismically active zone. The entire project design emphasizes high reliability. **Black & Veatch** told investors that the generating units will be capable of achieving 85% of availability. To...
...equipment redundancy and extensive seismic protection.

According to its designers, Intermountain is the first large **coal** plant in the U.S. to be fitted with such broad-based seismic protection. "It's unbelievable the amount of structural steel bracing and support built into the project," says **Black & Veatch**'s Dutton. He says the total **cost** of seismic measures is impossible to quantify because of their various effects on design man-hours, component fabrication and construction **costs**. For structural steel work alone, however, he figures the seismic design added about 15% to overall **costs**.

Black & Veatch's design is based on 24 similar units, 14 of which are in operation at...

... They have achieved availabilities of about 83%, much higher than the U.S. average for **coal** plants. But IPA and LADWP wanted more. To accomplish that, task forces were formed with... of using distributed stand-alone computers to control key systems is in the lower maintenance **cost** for delicate electronic controls, says Gary T. Rose, lead site electrical engineer and startup manager...

... the control room, we've got only a few for each unit." The computer system **cost** about \$95 million. Rose figures the savings over a centralized computer system at about 10...

... three weeks ahead of schedule. All of the components shared by the two units--including **coal** handling, water supply and treatment, and the main control room--are completed. Unit two is...

... The work was divided into 64 prime construction packages, which were awarded on a fixed-**price** basis to prequalified bidders. Dividing the work among specialized contractors paid off. "Labor productivity has...

... jack-of-all trades," says Anthony. Adds Rose: "The significant thing is that the average **coal**-fired plant over the past 10 years has been delivered 14 months behind schedule."

All...

... timing and size of the project have also attracted the best people at Bechtel and **Black & Veatch** to Utah. "We've been able to bring on board experts in nearly every aspect...

...manager for Bechtel. Dutton, who says IPP is the biggest design job ever undertaken by **Black & Veatch**, claims, "We pulled most of the top talent we had for IPP." Key people on...

... a 10-day planned shutdown. If the second unit matches that output and performance, power **costs** for the participants could be reduced significantly. The two generating units will be completed for about \$1.8 billion, including land acquisition and project management **costs**, or slightly over \$1,000 per kw. Transmission lines and other elements bring the sum of all direct **costs** for IPP to an estimated \$2.9 billion. Judicious refinancing and investing already has saved IPA \$2.75 billion in soft **costs**. Renegotiation of **coal** contracts, continued refinancing of debt and a possible rerating of the two units, is likely...

... the canceled third and fourth units. Other choices include building gas turbines and combined-cycle **coal** plants, proceeding with one or both of the planned 750-Mw **coal** -fired units at the White Pine project near Ely, Nev., or developing the Coso geothermal...

CAPTION:

Cooling system treats surface water and groundwater and has four mechanical-draft towers.

Coal -handling facilities can move and blend 4.4 million tons a year.

Control room monitors...

17/3,K/757 (Item 227 from file: 624)

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0009656

Editorials

Engineering News-Record December 5, 1985; Pg 56; Vol. 215, No. 23

Journal Code: ENR ISSN: 0013-807X

Section Heading: Editorials

Word Count: 870 *Full text available in Formats 5, 7 and 9*

TEXT:

Of **costs** , responsibility and safety

The best things in life are not always free. Structural integrity, for...

... quit juggling its responsibilities, to get back to assuming them and to charge their rightful **costs** .

An administrative law judge in Missouri has gone to the heart of the problem: Lack...

... refreshing. It will not get unanimous support. Some believe connections can be designed at less **cost** by a fabricator's licensed professional engineers--even including a full review by the engineer of record. Others believe it is less **costly** to have connections designed by the engineer of record and checked for constructability by the fabricator. But public safety, not **cost** , is the central issue.

In their contracts with owners, all structural engineers must account for ...

...difficult time. Dire predictions on the fate of the proposed \$9-billion, 3,000-Mw **coal** -fired station were based on its similarity in size, **cost** and organization to the Washington Public Power Supply System, the joint-action agency that nearly...

...750-Mw unit is due on line ahead of schedule next July at a direct **cost** that now looks likely to be 10% under the original estimate. The second unit is...

... and savings from refinancing debt at lower interest rates this year could reduce the total **cost** by \$670 million.

All this comes from good organization, tight management, a lot of practice...

... over 11 million man-hours without a work stoppage. All contracts were drawn up by **Black & Veatch** on a fixed- **price** , lump-sum basis with strong incentives for achieving **cost** and schedule goals and none for padding contracts. The design team stayed on the jobsite...

17/3,K/758 (Item 228 from file: 624)

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0009418

Relief reigns at Utah plant

Engineering News-Record November 28, 1985; Pg 15; Vol. 215, No. 22

Journal Code: ENR ISSN: 0013-807X

Section Heading: News

Word Count: 419 *Full text available in Formats 5, 7 and 9*

TEXT:

... disaster was unfolding for the Washington Public Power Supply System, the Intermountain Power Agency's **coal** -fired station was often compared to the WPPSS nuclear plants in its ambitious scope and high **cost** . Dire predictions abounded on its fate.

The predictions were wrong, according to the latest estimates on the **cost** of completing the two units now under way. Ronald L. Rencher, IPA's general manager...

...all completed construction contracts were finished below budget.

As a result of the lower construction **costs** , Rencher reported, total expenditures to date are 5% below the budgeted \$2.33 billion anticipated at this point in the project.

The total **cost** is estimated at \$4.4 billion, including financing. That figure does not include a \$1...

... a four-unit station was \$8.7 billion. That included \$3.3 billion in financing **costs** and did not include the California intertie. The project was halved in 1983.

The construction...

... IPA to predict that electricity from the station will sell in 1987 at a wholesale **cost** of 71 mills per kwh, down 27 mills from earlier projections.

The Intermountain project, near Delta, Utah, was designed by **Black & Veatch** , Kansas City, Mo. Bechtel Power Corp.'s Norwalk, Calif., office is the construction manager, and...

...p. 66).

Five bond refundings in 1985 were a major factor in reducing the anticipated **costs** of the power that will be produced at the Intermountain station, says IPA spokeswoman Ann Garrett. The average interest **cost** on outstanding bonds is now 10.2%, down from an average of 11.3% before...